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GANNA EHemannI



JANUARY, 1885.

FORETHOUGHT is essential to success. The horticulturist, especially, must plan his work for months in advance, and consider it greatly in detail, or its execution will be imperfect and fruitless. At the present season of the year, when the more active labors are waiting, an opportunity is offered to properly arrange the great features of the year's work, and also to plan the more important elements of detail; thus we can outline the structure intended to be raised. Let one carefully think over all the processes to be performed in almost any undertaking that may be contemplated on the farm or in the garden, and, though apparently simple, it will be found more or less complex, and if commenced with little or no forethought delays and changes will be involved that will retard its accomplishment and increase its expense. The man of thought and method can accomplish his designs with far greater ease than he whose equipment consists mainly of his muscle. But no truth is better understood than this, and our only excuse for giving it expression now is to enforce its application, if possible, to the horticultural labors of the present year.

About many new residences the grounds are to be improved. The first requisite of the soil about a dwelling house is dryness. This is a matter of first importance, and attention to drainage cannot be

slighted with impunity. To secure a good lawn the cultivation should be deep, the soil made mellow and fine, and made rich by the application of manure. Nothing is better than old well-rotted stable manure for this purpose, but when this cannot be obtained a good superphosphate is the best substitute, and can be applied at the rate of a thousand pounds to the acre, broadcast, and harrowed or raked in. Fresh stable manure should never be used for the purpose, as it always contains weed seeds, and usually a large amount, which germinate and give trouble often for years. Kentucky Blue Grass, *Poa pratensis*, makes an excellent lawn, so does Red Top, or *Agrostis vulgaris*; a mixture of these seeds in equal amounts is, perhaps, better than either one alone, but on some accounts a mixture known as Lawn Grass, consisting in great part of the species named above and one or more other valuable kinds and a little Sweet Clover, is preferable. If the land is in good condition in all respects, and the sowing made early a very fair lawn will appear by midsummer.

The vegetable garden should be planted by method, the place for every crop should be decided upon in advance, and for good reason. As much as possible there should be rotation in crops; what kind and how much manure each kind of vegetable is to receive should be

fixed upon, and the best thing to do is to make a diagram of the garden on a sufficiently large scale, showing where all the different kinds of vegetables are to be located, and hang it up where your eye will be sure to fall on it every day. Try it and you will have a better garden.

A careful memorandum should be prepared of all the flowering plants to be employed and planted in the spring. If any carpet beds are to be made, these should now designed, and seeds or plants for them secured in time. If an orchard or a fruit garden is to be planted, or an addition to either of these made the necessary preparations of the soil should be determined upon, and a careful diagram should be drawn, showing the position of every tree, vine or plant. What kinds and varieties of fruit to plant is a most important question, and one that cannot with any hope of profitable results be left to be decided by chance circumstances, as often is the case. The statements and representations of a traveling salesman often govern entirely the character of tree purchases. This should not be so, for, if tree dealers were always honest and honorable in all their dealings, it is not to be supposed that they know what kinds of fruits are adapted to the various regions and localities where they travel. The experience of those in the same neighborhood should be taken as a guide, and if possible, the adaptability of varieties to localities as indicated by the American Pomological Society should be understood, for this information is of the highest value.

A letter lately received from one of our readers shows the ways of, at least, one tree dealer, and though we would not judge the whole class from a single member of it, yet it is well known than too many of them have "ways that are dark, and tricks that are vain," and one cannot understand himself too well in dealing with them. The following, without address and name, is the letter referred to:

"I have been visited by a canvassing agent for nursery stock, &c., and, of course, learned considerable that was new to me, and I have doubts about the truth of a part of what he said, so refer it to you. First, he had a colored plate of a yellow Clematis, described as 'of the color of a Marechal Niel Rose; blossoms as large as Clematis Jackmanni; free grower, &c.' It was named Clematis apiafolia. Is there any such a Clematis? Again, he had a colored plate of a yellow Rose, the same plate I have seen used for Marechal Niel. This Rose was named

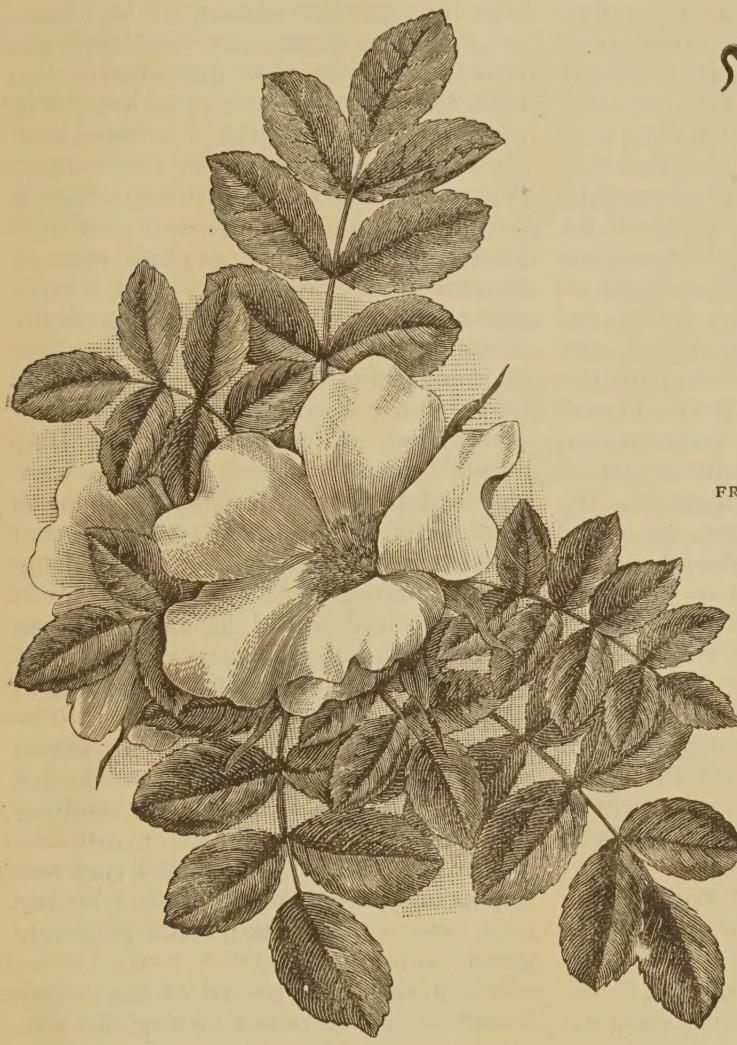
Marechal Laffay; was said to be perfectly hardy; a cross between Marechal Niel and Mme. Laffay.' I take most of the horticultural journals in this country, and if there was such a Rose I think it queer a description of it has not found its way into some leading journal. Lastly, he tried very hard to sell me a 'Strawberry tree, at a large price. Now, I have heard of this tree or shrub before, but have seen no account of it in my magazines. Please describe it. How old must it be before it would be pretty? Is it hardy, and as beautiful as described? A reply will oblige me, and may interest others."

Clematis apiafolia is mentioned in the lists of some nurserymen, but we have no authority that describes or mentions it; there is good reason to think that is not a large-flowered sort, but probably a variety of some species with small or medium-sized flowers, perhaps resembling somewhat *C. graveolens*. There is no Marechal Laffay Rose; it is a pure invention. As to the Strawberry tree, Euonymus of several species, it is a good hardy shrub, quite ornamental when covered with the showy fruit, and desirable in a collection, but we know of no reason why it should be given special prominence. The common price of the shrub is fifty cents. In answer to the inquiry of its being as beautiful as described, we can only say that we do not know how highly his "fancy painted" it. If we should accept all that some of the most accomplished of these salesmen relate, we should no doubt be induced to believe that men could gather "Grapes of Thorns or Figs of Thistles." We would not indiscriminately condemn tree dealers as a class, as is sometimes done, for we think that on the whole they are doing a good work, but the more intelligent of the people possessed of that quality of forethought, which, with some of its applications to garden affairs, is the subject of our present writing, should deal directly with the nurserymen. Why, in this case, we should encourage a middle-man without any benefit from him whatever, when in other departments of trade we seek, by all possible means, to do without him, though usually unsuccessfully, can be accounted for only by referring it to the force of habit. In no business can the producer and the consumer meet each other more directly. Nurserymen advertise their business in the leading journals, publish catalogues describing their trees and plants, which can be had for the asking, and, as a rule, are reliable in their dealings. The course to pursue is plain.

THE RAMANAS ROSE.

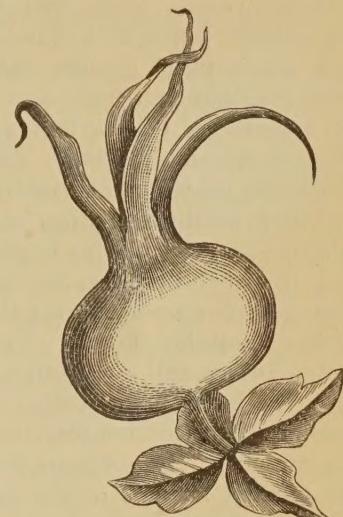
Those who like the wild Rose, and who does not, will be pleased to see one, of which an illustration is here given. Rosa rugosa is an admirable plant, even without flowers its rich, dark green, and rugose, or wrinkled leaves, would be sure to attract attention, but with the added

to the beauty of the plant. The plant is one of the earliest among Roses to commence to bloom, and continues almost without interruption through the season. Plants are easily propagated by the



ROSA RUGOSA—HALF SIZE.

beauty of its large, single flowers, it holds our gaze. It is an ornament for any garden. It is a native of Japan, is a low-growing bush, about three feet in height, quite compact, and when fully grown three or four feet through. Its large single flowers, twice the size here shown, are of a bright rosy crimson, and are produced plentifully, and very constantly, during the summer, and are succeeded by large hips or seed vessels, a figure of one of which is shown about natural size; these hips as they ripen turn to a bright red, and add no little



FRUIT OR HIP OF ROSA RUGOSA — NATURAL SIZE.

seeds, which are produced abundantly with us, and the seedlings prove true to the type of the species. THUNBERG called this Rose by its Japanese name, Ramanas, and it is more or less widely known as the Ramanas Rose. There is a white-flowered variety of it, similar in habit, and in all other respects except color. These form a pair of beautiful plants, either for the lawn or the garden. We have not raised seedlings from the white variety, though it yields seed plentifully; plants of both the rose-colored and the white can be propagated, if desired, by budding on other stocks. By taking advantage of any perceived tendency of duplication of petals varieties of this species with double flowers could, in time, be developed, in fact, there is now a semi-double variety. To many it would appear a doubtful improvement. "Nature unadorned," is, we think, in this case, "adorned the most." Its natural beauty is fully satisfying.

CANNA EHEMANNI.

The Canna is growing in importance in this country for summer bedding, or, using a popular and fitting phrase, as a foliage plant. It has a peculiarly tropical appearance that commands notice; its erect, stately form, and large, luxuriant leaves make it a handsome object, and when fully grown, standing from three to eight feet high, and surmounted by a spike of bright colored flowers is exceedingly interesting. The ease with which the plants can be raised from seed, and their hardiness, being such that their tuberous roots can be kept over winter in a frost-proof cellar, are no small advantages they possess for gaining and retaining popular favor. The seeds of Canna Indica and a few other species and varieties have been rather widely disseminated in this country during the last twenty years. The Canna is considered, botanically, as one of the Gingerworts; it belongs to the order Scitamineæ, which includes the Ginger, Cinnamons, Bananas, Arrow-roots, Maranta, &c. The genus includes a large number of species, most of which are natives of the West Indies and warmer countries of South America; a smaller number inhabit India and the East India islands. A considerable number of these species have long been cultivated in Europe, and some of them for more than three hundred years. A score of years, however, covers most of the period in which they have been employed extensively even in Europe as plants for summer culture in the open air. A number of admirers and raisers of this plant, and especially some French horticulturists have been engaged in the work of hybridizing the species, and raising new varieties thereby; and other varieties have been raised from seed, without hybridizing. Such a variety is the form figured in the colored plate presented this month, derived from *C. iridifolia*. In regard to this species, iridifolia, an English writer, W. B. HEMSLEY, says, that it is "one of the showiest spe-

cies of the genus; indeed, in the size of its flowers it exceeds all the other species. In the structure of its flowers this species differs materially from all the other species of Canna, the inner petals being united, forming a long, funnel-shaped corona, as HORANINOW terms it. The botanist just named, in his monograph of the Cannaceæ, considers this difference of generic importance, and calls the plant Achirida iridiflora. The history of the introduction of this splendid plant into cultivation in this country is very singular. We are indebted for its first introduction at all events to that patron of horticulture, AYLMER BOURKE LAMBERT, who, in 1816, received a large collection of seeds and fruits made by the celebrated traveler, DON JOSE PAVON, in his wanderings in Peru and Chili some thirty years previously. Mr. LAMBERT determined, notwithstanding the long period that has elapsed since they were gathered, to try to raise such of them as he thought had retained the power of germination. He succeeded in raising several, among them the plant in question, and it flowered in his garden in 1817. It is a tall-growing plant, attaining as much as from six feet to ten feet in height under favorable conditions. The leaves are from twelve inches to fifteen inches long, and six inches to nine inches broad. The flowers are few in number, but very large, pendulous, nearly six inches long, and of a beautiful rosy red, tinged and streaked with yellow on the tube, where the ground color gradually tones down to a pink."

Instances are on record of the variety Ehemannii being raised in England that were over ten feet in height, and with leaves two and a half feet long and a foot wide. To bring the plant to its highest perfection in the open air are needed a rich, warm soil and plenty of water during its growing period, at the close of which it will send up its spike of large, beautiful, rosy-crimson flowers. Increased by tubers.



CORRESPONDENCE.

CONSTRUCTING A COLD GRAPERY—PRIZE ESSAY.

The construction, planting and management of a cold grapery.

The first thing to be considered in the erection of any horticultural glass structure is site. It is of the utmost importance that the glass-house be erected with an aspect suited to the requirements of whatever class of plants it is designed for; as, for instance, it would be folly to erect a fernery where it got the sun the whole of the day, or a plant house or viney where it could get it only an hour or two. Yet how seldom this is taken into consideration; it appears to be the last thought. Generally the house is put up to hide a blank wall, or because it would look well there; in fact, for any reason, rather than the only one that ought to govern the choice, viz.: that the plants would do well there. For example, I will state that here, in Toronto, I have one range about one hundred and forty feet long, at the east end of which, within ten feet, is a giant Elm, overshadowing one-third of the upper half from the morning sun; in the center, rising from the second story is a high brick building, which shades the lower or west end from the morning sun and the upper end from the afternoon sun. Under this center building, with glass front and sides, I am expected to raise stove plants, &c., a species of window gardening not very agreeable.

Again, another range, about one hundred and twenty feet long, is divided into a viney and plant house; at the east end is a pentagonal building projecting considerably further out than the plant house, where it is joined by a clump of Spruces, forty to fifty feet high, keeping the sun from the east end of the range till nearly ten o'clock in summer and much later in fall, winter and spring; and at the viney, or west end, there is another pentagonal building to match the east one, and a plantation of trees about the same height, so that one-half the viney is always shaded after three o'clock in the afternoon. These houses may look

well in the positions they occupy, but I know the trouble and anxiety they give me to bring my plants and Grapes forward in them. Therefore, in choosing a site, do not choose it because it would look well, or because it would hide some undesirable looking wall, but because the vines would get the morning and afternoon sun in that place. When the site is chosen, have it well drained to a depth of five or six feet, carefully noting the soil, subsoil and strata, and their various depths.

It is well known to most good Grape growers who have studied this question, that good Grapes cannot be grown in a soil deficient in potash, lime, carbon and phosphorus, in one or more of their many combinations; to make this clear I give the following

ANALYSIS OF THE WOOD OF THE VINE.

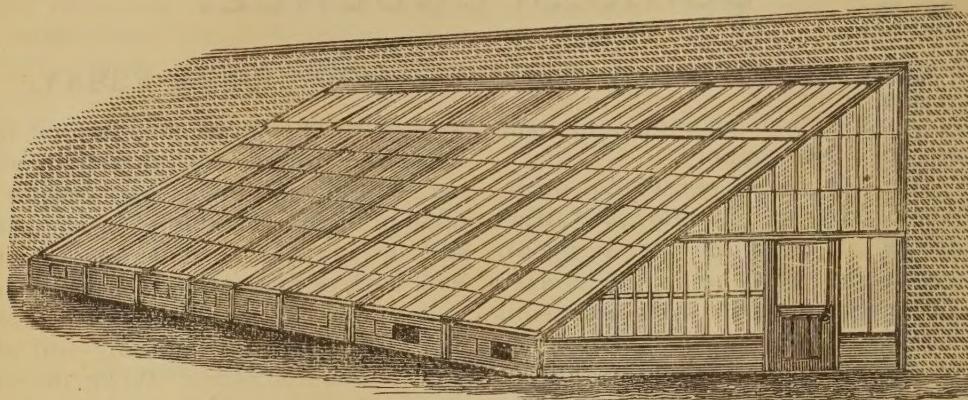
	Per cent.
Potassic oxid	18.0
Sodic oxid	0.2
Calcic oxid	27.3
Magnesic oxid	6.1
Ferric oxid }	3.8
Alluminous oxid }	10.4
Phosphoric anhydrid	1.6
Sulphuric anhydrid	0.1
Chlorine	20.3
Carbonic anhydrid	10.9
Sand	1.3
Loss	<hr/> Total
	100.0

It will be seen by this table that the four elements mentioned above enter into combinations which constitute 75 per cent. of the wood of the vine, and this must be taken into consideration in making up their food. Threfore, if the soil of site is sandy, I would procure the turf six inches thick from a strong loam pasture, build it up in a heap, grass downward; if heavy, take the sod from a sandy pasture, and between each layer put about one inch of animal excreta. In another heap I would put farmyard manure and leaves, equal parts, turned over from time to time, and basted with gravy of the same, the ammonia fixed with sulphuric acid, and by the time the

vinery is ready these will be ready for mixing with other ingredients to be mentioned in making the border.

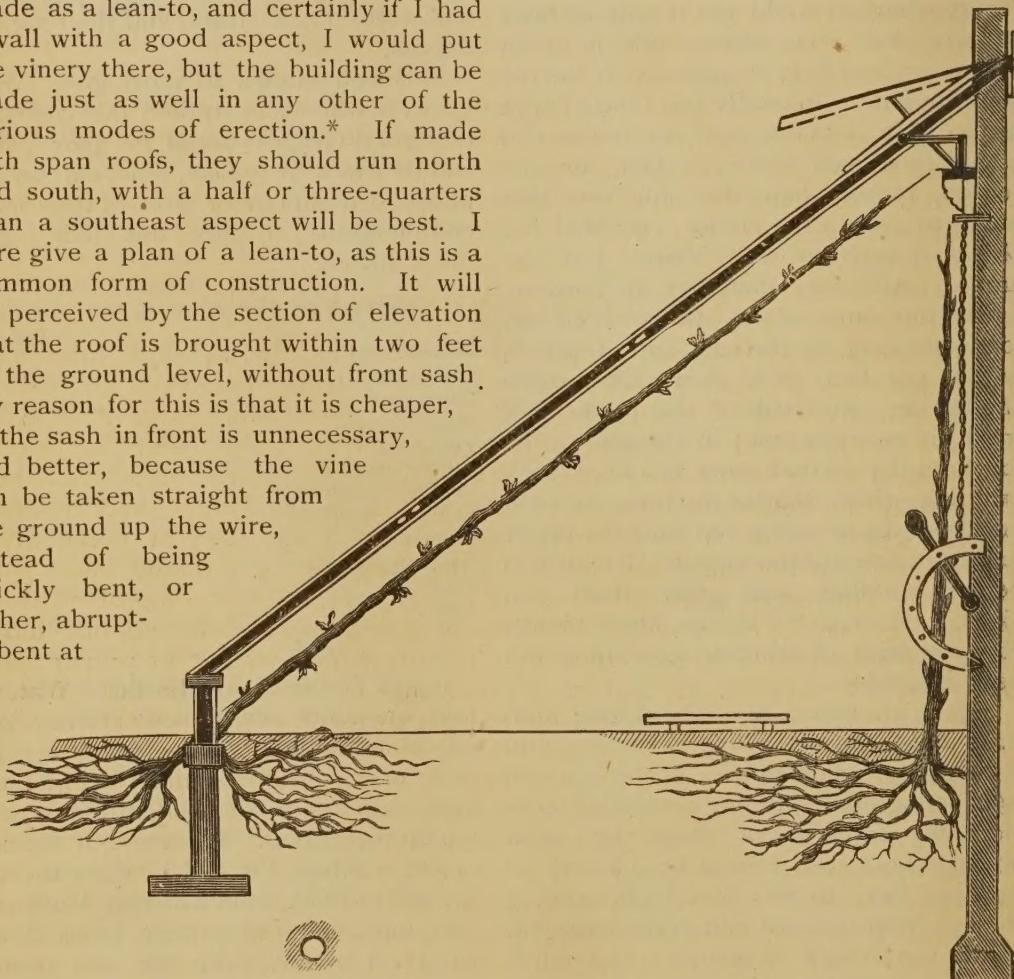
Construction. The viney is frequently

feet wide, eighteen feet is a preferable width. All sills, posts and plates should be of well-seasoned Cedar, and the other woodwork of Red Pine, or



A LEAN-TO VINYER.

made as a lean-to, and certainly if I had a wall with a good aspect, I would put the viney there, but the building can be made just as well in any other of the various modes of erection.* If made with span roofs, they should run north and south, with a half or three-quarters span a southeast aspect will be best. I here give a plan of a lean-to, as this is a common form of construction. It will be perceived by the section of elevation that the roof is brought within two feet of the ground level, without front sash. My reason for this is that it is cheaper, as the sash in front is unnecessary, and better, because the vine can be taken straight from the ground up the wire, instead of being quickly bent, or rather, abruptly bent at



VERTICAL CROSS-SECTION OF VINYER, SHOWING VENTILATION AND MODE OF TRAINING VINES.

the angle of the roof and front sash. The house should be from sixteen to twenty

* A span-roof house is altogether preferable for a viney, and is the only method of construction that should be thought of, except when one has a wall that can be utilized for the purpose.—ED.

Pitch Pine, if procurable. The lower sill should rest on either stone or brick pillars, or else Cedar posts morticed into a cross, so as to prevent sinking with the weight of the superstructure. The house should have as much glass as possible in

its structure, and as little wood as is compatible with strength and durability. Therefore, I would have the sash six feet wide, and each pane one foot by eighteen inches, well bedded in putty, and fastened down by tin tacks, no putty on the outside above the glass. I am convinced by personal experience that this is the cheapest, lightest, tightest and best mode of glazing. I have a large house glazed in this manner here, and it is the best house I have, less drip, which is a great consideration in a viney, lighter and better every way. The ventilation of a viney should be back and front, but should never slide down, as this necessitates taking the air off at the slightest drop of rain; the back sash should be lifted up, and in the front there should be sliding panels. The ventilation at the back should be made so that an inch can be given with as great facility as a foot, which should be the maximum, as with the front slide open and the back ventilators open a foot you cause circulation, thereby often reducing the house to a lower temperature than the outside at-

mosphere; I have frequently seen my viney so on a still, sultry summer day. When the woodwork is finished, give it a good priming of red lead, then glaze, and then give two coats of good paint, this will skin the wood and glass, and effectually prevent any rain, &c., from getting through.

Before wiring the house, make the border, as follows: For every cartload from each heap made in the fall, i. e., the turf, manure, &c., mix half a hundred weight of half-inch bones, half a hundred weight of bone meal, a hundred pounds of lime rubbish and a bushel of charcoal; thoroughly mix the whole together with the soil that is already on the site to a depth of three and a half feet, except in the case of the subsoil being clay or sand, in which case it must be carted out and better stuff brought in its place. In making the border, tread moderately firm as you proceed, fill up a little above the sill and water well down. While this is settling the house can be wired.

The remainder of this Essay will be given in the February number.

THE LEMON VERBENA.

The Lemon-scented Verbena, *Aloysia* (*Lippia*) *citriodora* is a well known half-hardy, deciduous shrub, growing from two to five feet in height, and belonging to the natural order Verbenaceæ. It is cultivated for the delicious fragrance of its leaves, which are much used during summer season in bouquets and other floral work. The leaves, when dried, retain their fragrance for many years. The flowers are produced in large, terminal spikes; they are very minute, and of a pale purple color, but as they are so insignificant they are not much esteemed, the foliage being the most desirable portion. The plant is easily cultivated; it can be planted out early in May in any sunny situation, if given a deep, well enriched border. As soon as growth commences it should be well watered both overhead and at the roots. Pinch back the leading shoots as often as it is necessary to keep the plants in shape, and on the approach of frost take the plants up carefully and place in a pot or box of suitable size, fill in with earth and place in any dark, cool cellar where frost will not touch it, and where it can be

kept rather dry. In the spring trim the plant into shape, removing all weak, straggling shoots, and place it in any warm situation, water being sparingly given until growth starts, when it can be planted out in the border, and treated precisely as it was the year previously. Or the plant can be repotted into a pot of a larger size, using a compost of two-thirds well-decayed sods and one-third old stable manure, and at the proper season plunge in the flower border. Water thoroughly as often as necessary during the season of growth, and on the approach of cool weather take it up and bring inside. Keep the plant well supplied with water and in a temperature of 55° until the leaves fall, when it can be removed to the cellar or placed under the greenhouse stage. In the latter case place the pot on its side; or the plant can be potted, as above advised, and a strong shoot carefully trained to a single straight stem to about three feet or more in height, and the branches then permitted to grow out in a graceful form, thus forming an excellent ornamental or exhibition plant.

Propagation is effected by cuttings of the young wood placed in sand in gentle bottom heat, and it is said that if green cuttings are taken in midsummer and inserted in garden soil in a shady situation and sprinkled occasionally they will soon root, and if the young plants are liberally treated, nice specimens will soon be obtained; but as young plants do so much better when planted out for

one season, it is advisable to give them this treatment, no matter for what purpose they are intended hereafter.

This is the only species of Lippia known; it is a native of Chili, whence it was introduced in 1784. The name Aloysia was given in honor of MARIE LOUISE, Queen of Spain, and the specific name in allusion to the delightful Lemon-like fragrance of its leaves.—CHAS. E. PARNELL.

COTTAGE DESIGN.

This design is the result of a study for a dwelling combining as many features of convenience, good taste and economy as possible, not forgetting a neat, dressy exterior, to cost about \$1,800 to \$2,000.

The foundation of this house is of stone. Cellar under the sitting and din-

The bay in parlor is arranged so as to be a corner or side bay, and the sitting-room corners are angled so as to form a bay the full size of the room. In rear of this room is a porch with an entrance into the sitting-room. This feature makes the design very appropriate for a

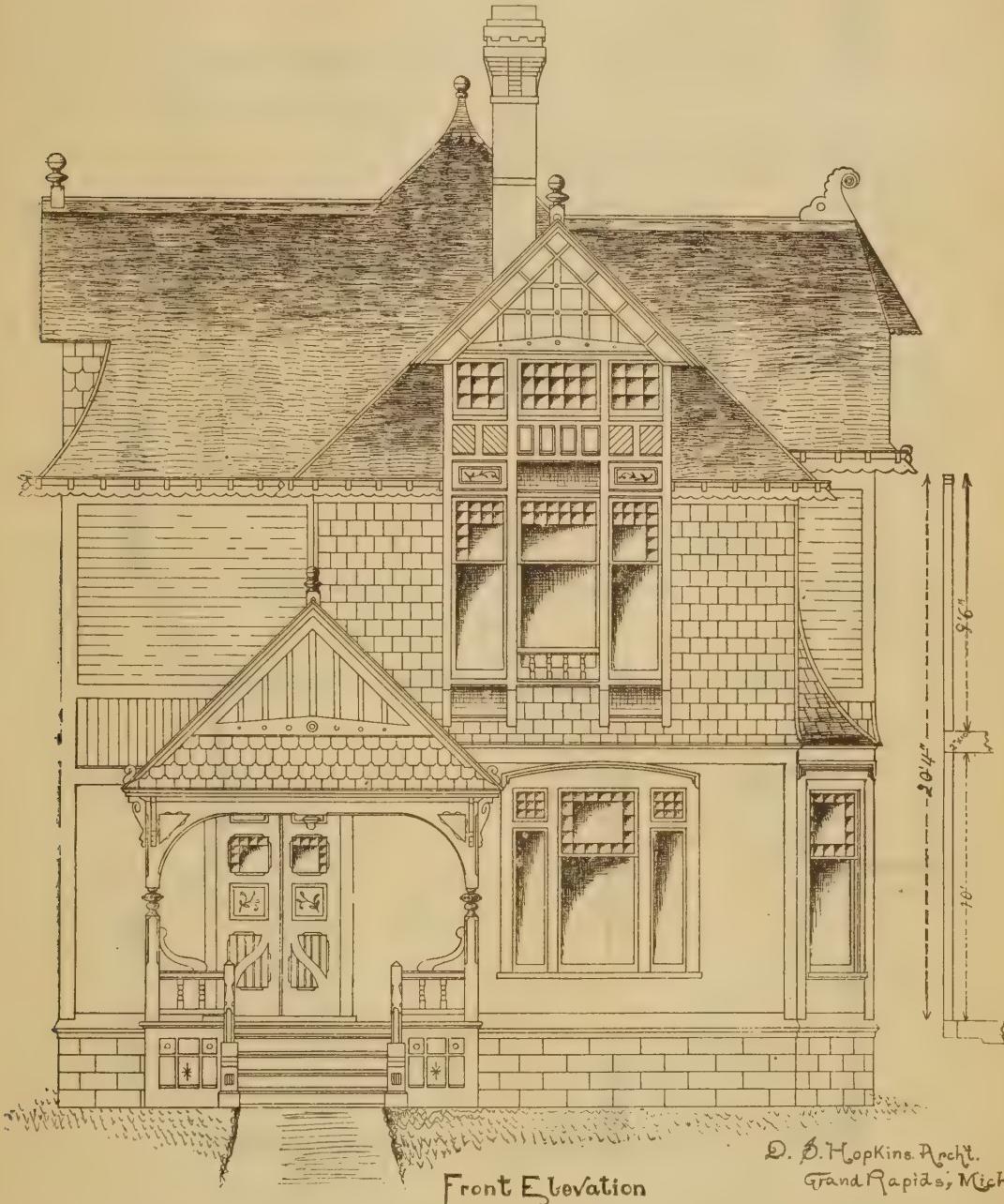


ing-room of main part and kitchen of wing, the latter to be used for storing fuel. This gives an abundance of cellar and allows of furnace connections to main chimney, if desired at any future time. One chimney answers for all rooms of main part, first and second floors, including fire-place in parlor. Also, one flight of stairs answers for front and rear uses, with the short flight from dining-room up to main stair landing.

corner lot. The dining-room has a bay end formed by throwing a segment arch between stair projection and the opposite wall. This makes a fine window for house plants, and a very pretty feature of the dining-room. All the principal rooms and the hall are thrown together with sliding-doors. Between the dining-room and the kitchen is the cupboard rooms. There is no exposed shelving, everything being enclosed with doors or drawers, so

that a passage through it is unobjectionable, and a great many steps in doing the work are saved by its convenient location; it also tends to prevent offensive odors entering the dining-room from the kitchen. Under the wide shelf at the window is a tip forward flour bin, for

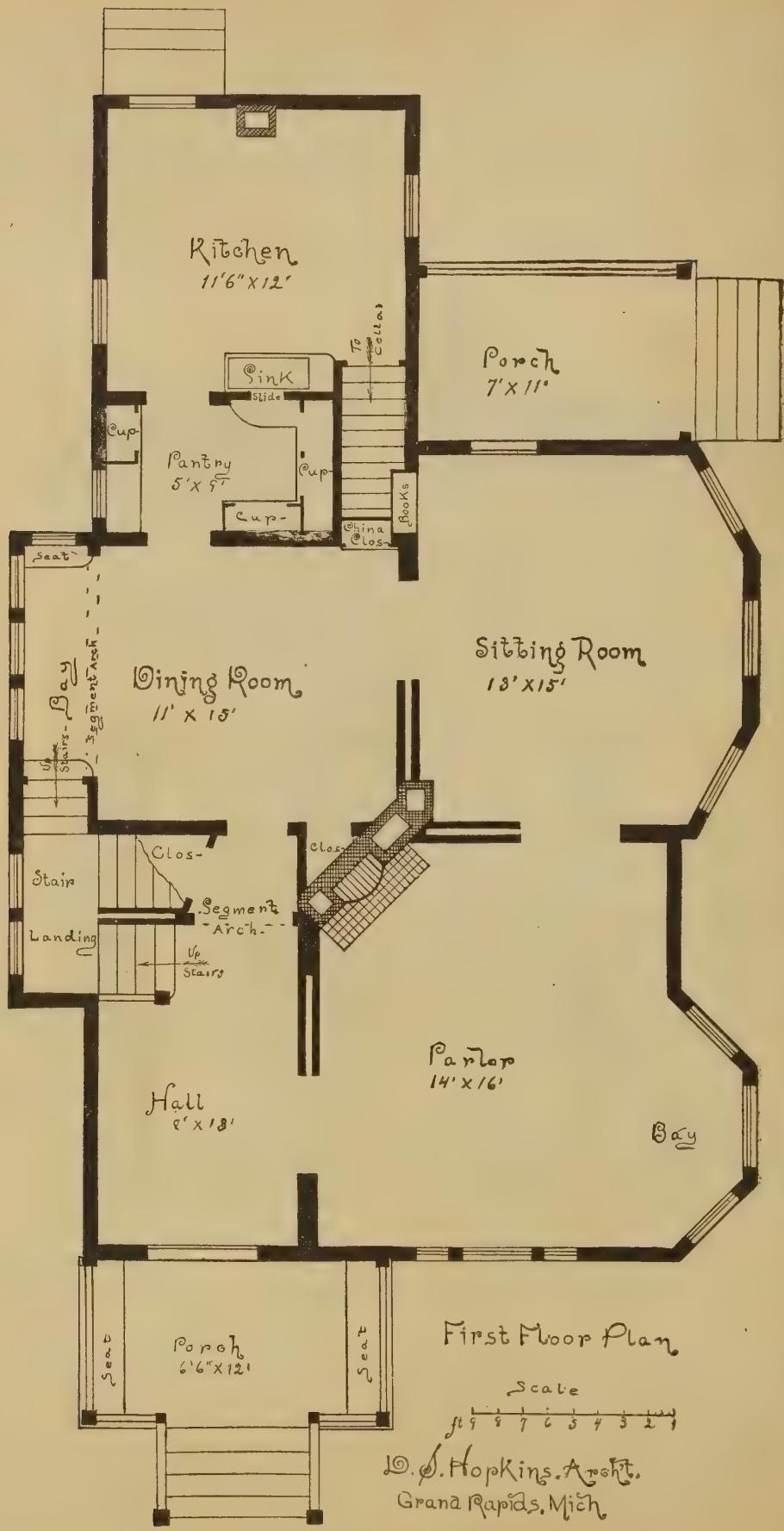
the dining-room is another very convenient closet, as well as one in the hall, under the stairs. Upon the stair landing there is a sliding door which can be closed so as to avoid any drafts in the heating of the hall, or for the privacy of the rear stairs. The windows are so ar-

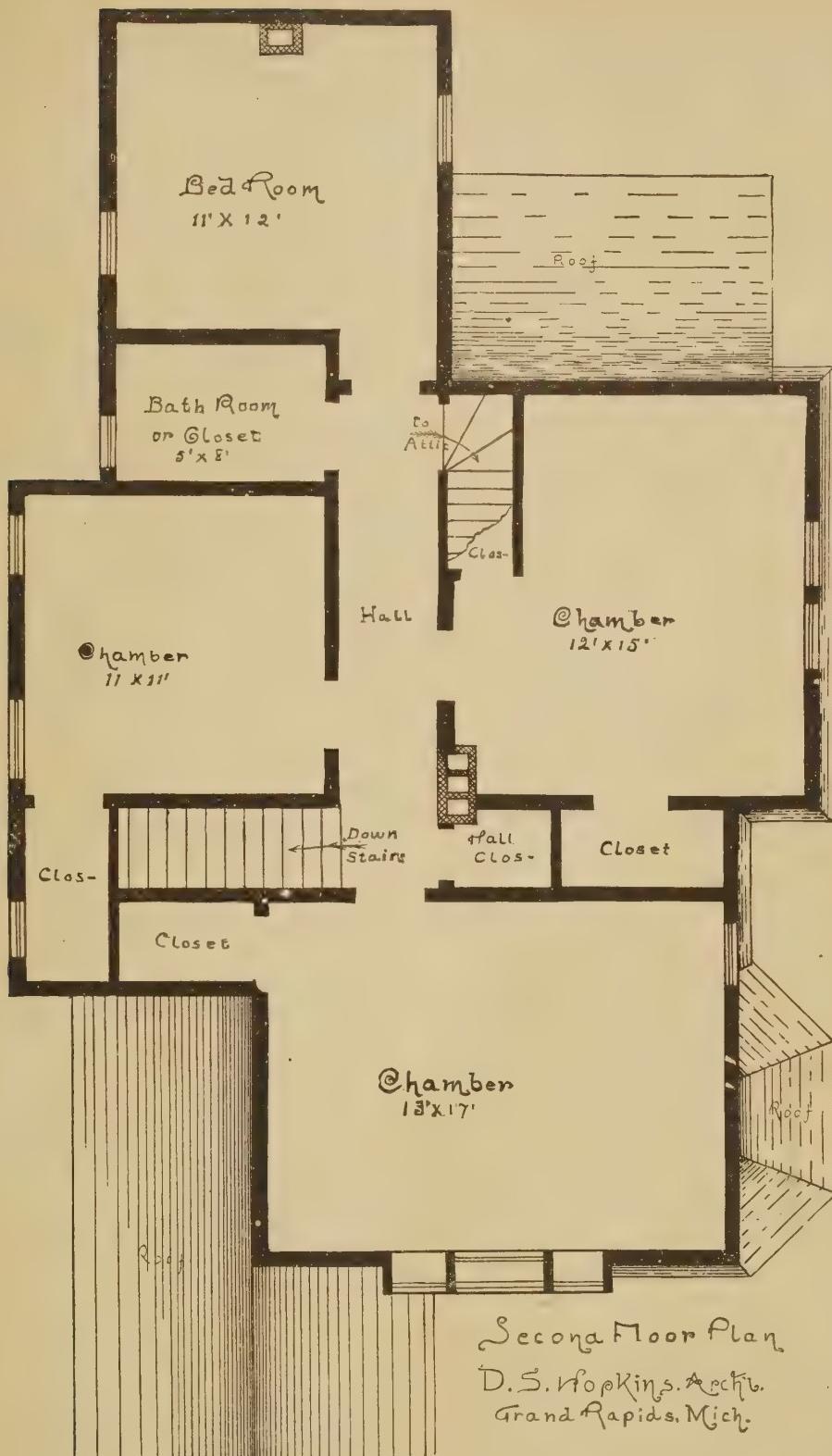


holding flour, meal, &c. There is a special china closet in the dining-room, provided with drawers, doors, &c. In the sitting-room is another space saved by setting in a book case over the cellar stairs; it will set about two feet from the floor, owing to the head room of the cellar stairs. At the rear of the fire place in

ranged as to light the stairs, and at the same time the hall, in either case.

Upon the second floor there are four bed-rooms and an abundance of closets, and stairs to attic; also a large hall closet, or, if desired, can be made into a nice bath-room. Two nice rooms can be finished off in the attic, if desired, or





Second Floor Plan
D. S. Hopkins, Arch't.
Grand Rapids, Mich.

that space makes a nice store-room. The exterior of this cottage, at first appearance, looks somewhat elaborate, but in detail is quite simple and not expensive. It is represented in the elevation and perspective as being partly shingled

and partly sided upon the second story, but shingling can be substituted for siding, if preferred. The frame is in the ordinary balloon style, sheathed up on the outside, and lined with building paper under all exterior finish throughout.

This cottage can be built for \$1,800 or \$2,000, according to locality, finished in Pine, no plumbing or heating included. Parties desiring any further information

can address, with stamp, D. S. HOPKINS, Grand Rapids, Mich., who will cheerfully answer all inquiries concerning plans or otherwise.

VINES FOR THE HOUSE.

A correspondent writes: "I wish you would tell us something about vines for the house, something about such vines as you have tried and know to be good. I have room for but few plants, and I think vines are more satisfactory in such a case than other plants are."

The Madeira Vine is a good climber for summer use, as it grows with wonderful rapidity, has clean, bright foliage, and requires only the most ordinary care. I have succeeded very well with it in winter by planting tubers in a pot in spring, and keeping them very dry, giving only enough water, in fact, to keep them from shrivelling. Kept in this way, the plant will make but very little growth. In September, I bring the pots in, and give more water. In a few days the vines will begin to start, and they will keep on growing all winter.

A vine that I prefer to the Madeira Vine, however, is the new *Senecio macroglossus*. It is a variety of the rapid-growing German Ivy, which is not an Ivy in anything but the resemblance of its leaves to the true Ivies. This plant has very dark leaves, of a thick texture, and they bear so close a resemblance to the English Ivy as to deceive many persons. This vine grows well, and is much more graceful than the Madeira Vine.

Another very satisfactory vine for the house is the Cobœa. It has large, healthy foliage, of a dark green color, and is a rampant grower. I have two pots of it in my conservatory, and there are branches on each plant which have made a growth of at least twenty feet in the last three months. You can almost see it grow. It has tendrils at the end of the leaf which cling to whatever they come in contact with. Give the plant plenty of strings, and it will go anywhere. To train about the entrance to a bay window it is one of the best plants I know of. There is a variety, *C. variegata*, which has cream-white markings on a pale green ground. This is very beautiful. The Cobœas have large, bell-shaped, flowers, which are very attractive.

I procured a *Lygodium scandens*, or Japanese Climbing Fern, last spring. At first it did not do well. I think I gave it too much light. After a while I gave it a corner of the conservatory, where it receives no sunshine, and since then it has grown well. An English Ivy grows there, and it has wound itself in and out among the branches of that plant, and the contrast between the rich, dark foliage of the one and the light-green, feathery fronds of the other is very pleasing. For a half-shady corner, in a warm window, I like the *Campsidium filicifolium* very much. It has delicate, Fern-like foliage, and is a fair grower.

A year ago, I ordered a climbing *Solanum*, *S. Jasminoides*. I am wonderfully pleased with it. It is a very rapid grower when given plenty of pot-room. My plant stands by the side of the large opening into my conservatory, and has been trained up the frame and over it, until the opening is wreathed and festooned with heavy masses of green. From that position it has clambered to the rafters, and I think it intends to cover the whole roof. It will do so if it keeps on at the rate it has been growing of late. It is a profuse bloomer in winter; its flowers are star-shaped, in clusters, and are so nearly white that you can hardly call them anything else, but are tinged with palest lavender. They are very beautiful. All things considered, this is one of our best climbing plants for the house, and I wonder why we so seldom see it in collections.

The Jasmine is one of our sweetest flowers, and its foliage is always attractive. The Catalonian Jasmine, *J. grandiflorum*, grows well in the house. It blooms well in winter, its pure white, starry flowers showing very effectively against its airy foliage. Half a dozen flowers will fill a large room with fragrance. Its odor is almost as powerful as that of the Tuberose or Cape Jasmine.

After all, the best vine is, I think, the good old English Ivy. Certainly I would choose that in preference to anything

else, if I could have but one. It grows well, its foliage is persistent, it is easily managed, does not care for a strong light, and improves with age. A well grown specimen, covered with its dark rich foliage, is always a pleasant sight. Some persons say they cannot make the Ivy grow. I have never had any trouble with

it. I give my plants a soil made up of leaf-mold, ordinary garden earth and plenty of sharp sand. I give a good deal of water; with good drainage, and a soil containing considerable sand and fibrous matter, there will be no danger of "souring," if the pot does not stand in sunshine.—EBEN E. REXFORD.

A FEW SUGGESTIONS.

A mistake which some, if not all, growers of house plants make at the outset is that of trying to root cuttings in the shade, fearing that if they are put in the sunlight they will wilt. This is a mistake, especially in the case of Geraniums, which cannot have too much light when rooting. Give them plenty of sunshine, and do not deluge them with water if you would not have them decay instead of rooting. Never attempt to strike cuttings or even grow plants in any receptacle which has no drainage, or disappointment will very likely be the result.

In potting plants be careful to press the earth firmly down on the roots, and leave from half an inch to an inch, at least, space at the top of the pot in order that the plant may be easily watered. When pots are filled to the very top with earth, watering is a tedious process, and the earth is apt to splash out on the shelves, thereby causing much unnecessary labor.

In watering, be sure to give enough so that it will penetrate to the bottom of the pot. A slight watering at the top does not reach the fine roots deep down in the pot, and this is necessary to the health of the plant. On the contrary, do not over-water. Never keep the earth in a pasty condition, or with water standing on the surface, as this will kill most plants in a short time.

Many hard-wooded plants are easily rooted by placing the cutting in a bottle of water in a light place, and supplying water as it evaporates. This is a very good way to root Oleander, Daphne Indica, and would, perhaps, be better treatment for the Myrtle in the hands of amateurs than the ordinary way of rooting in earth. The Achania and Lemon Verbena are also amenable to this kind of treatment, although not at all certain to strike root if treated in the usual manner. Coleus and Chrysanthemums root very

easily and surely in this way, which has one great advantage over the usual method for the inexperienced horticulturist, in that it does away with the burning desire to dig up the unfortunate plant every other day, to see if it is rooted, as the whole process is revealed through the transparent water, from the first roughness of the stem until the slender roots reach out toward the edge of the bottle to announce the fact that substantial food is now required. The Rex Begonia is another plant which can be rooted in water, and it is well for amateurs to try this process, otherwise their faith might be severely tried by waiting so long for the tiny shoots to start from the base of the parent leaf.

Never attempt to keep the Scented Geraniums in a very dark place, or to winter them in a cellar. Always give the Pelargoniums, or Lady Washington Geraniums, a place near the glass, if you wish to enjoy their beautiful blossoms. They are very exacting, as a rule, and will not endure the neglect and shabby treatment which is so often meted out to the long-suffering Zonales.

Do not train the Hoya, or Wax Plant, from some shaded corner across the still more shaded ceiling of your room and then expect to be rewarded for your unkindness by a profusion of its fragrant flowers. Remember that most plants require sunshine, and nearly all, except the lowest forms of vegetation, such as mould, &c., must have light in order to thrive. In setting, or plunging, plants out in pots for winter blooming, take care not to plunge the pots entirely under the soil, and put coal ashes beneath them, or you will probably have a very respectable crop of angle worms in the fall. Do not leave them out until after the fall rains, or they may make such a rank growth as to require repotting, especially if plunged too deeply, as they will root over the top

of the pot, I have learned to my sorrow. Give Valotta purpurea and all varieties of Amaryllis plenty of water during the growing season, and a place on the veranda,

instead of in the house, during the summer months. Observe the habits of plants as you do those of the people about you, and be guided by the result.—X. Y. Z.

WILD BLACK RASPBERRIES.

About eight years ago, I planted in the clayey soil of our garden a few roots of the common Black Raspberry. I just pulled them out of their native bed in the "hollow," and put them in the home ground as hastily. That I planted them at all was because of my liking for the flavor of the wild berry, and I never had enough of them. But I was soon to have enough of the vines; they sprawled and spread from roots and tips, though the berries were few and small, all seeds, in fact. I had to cut down the vines again and again; they wound in and out among the canes of our Lawtons, they tangled their long growths about the young Grape vines, they reached up through the Peach trees and drooped down to the ground, rooting by their tips, and so making trip-traps for the feet, a nuisance altogether. I cut off and threw away, and pulled up roots and threw away, until only four places remained where the vines would come up, and I let them grow and fruit. In two places the vines and berries were much the larger, and this led me to seek for the cause. The soil was all alike, but the location of these

two vines was much more shaded and damp, being on the north side of a high board fence. I cut back all the new shoots but one, and the next year the berries were very much larger, while they retained their wild flavor. Again, I allowed only one shoot to grow, and in addition pinched the ends of the laterals before they drooped over. This caused them to throw out a side growth which also was nipped at the ends, and now, for two seasons, I have had upon these vines Raspberries fully as large as the Doolittle variety, and as prolific. They begin to ripen with the field berry, and continue to bear till the Mammoths and Greggs are gone. The berries are produced in clusters, and from the ground to the top, not only the laterals are full, but along the main stem every node sends out a large cluster of large berries. They are fleshy, juicy, and have the aroma of the native fruit. The other two plants are neither so large, nor so prolific. I have, this year, let the laterals grow much longer, and have two canes instead of one. Next season will show the outcome of this treatment.—A. L. H. W.

GRAPE-GRAFTING.

To read what Mr. RIEHL says in the last volume, page 361, about his finding his Grape grafts of any sort as sure to succeed as Apple grafts, and his wonder at others failing, is equally a wonder to those others. For the fact remains that experienced grafters, even of longer practice than Mr. MILLER, and he is by no means a tyro, find every precaution vain in attempting to graft vines by the process described by Mr. RIEHL, or even the

more elaborate tall grafting recommended by Mr. FULLER. I acknowledge continual failure of many trials by every conceivable method and care through forty years, excepting some successes with grafts retarded by keeping dormant in ice or spring water from March till June, in sealed cans, and set about June 10th. Messrs. BUSH, of Missouri, say that some sorts graft with comparative ease, while others are totally refractory.—W.



FOREIGN NOTES.

GRAPES IN BLUE PAPER BAGS.

"A correspondent residing in London forwarded for our inspection two small bunches of Grapes, which had been grown out of doors but a short distance from Hyde Park Corner. The color of the one bunch was quite red, whilst the other had the normal black tint of the variety; the first, having been grown in a blue paper bag, had undergone a partial bleaching, hence the reddish color; it was likewise sensibly deficient in sweetness, well known results following a great deprivation of light and air. Paper bags of any color, or those made of netting or muslin, should never be placed over fruit before it is ripe, or bad consequences invariably follow."

The above, from the *Gardeners' Chronicle*, is of value as showing the effects of enclosing growing clusters of Grapes in bags of a blue color; but the concluding advice given in the last sentence is evidently not based upon experience, as hundreds of fruit growers in this country can testify to the value of enclosing Grapes in common manilla bags. These are placed over the clusters when the berries are about the size of Peas, and the result is uniformly good, securing the fruit from mildew, and allowing it to color and ripen to perfection, with its full sweetness and flavor.

FUCHSIAS IN GREENHOUSES.

Few plants are so well adapted for planting out in cool conservatories as Fuchsias, and yet one does not often see them thus employed. What can be finer than a Fuchsia ten feet in height and four feet through, laden with flowers? It requires really skillful culture to obtain such results in pots, but there is no difficulty in doing so by planting out. Then, again, how fine they look trained to the rafters, a position in which the major portion of varieties display themselves to the best advantage. I once saw on the banks of the lake of Thun, in Switzerland, a house in which the best kind were used in that way. It formed one of the prettiest floral pictures I ever saw, the plants

being very luxuriant and carrying an immense number of finely developed blooms. I think it is a great pity that Fuchsias should not be more frequently employed in this way in ordinary greenhouses, as they would effectually embellish them during the summer, and being easily kept within bounds, would not interfere much with the well-being of other plants grown in pots. Dropping their foliage by the time the darkest days arrive, they would not materially obstruct the light from bedding plants or other things wintered in such places. Single varieties are most suitable for the purpose, but some of the stronger-growing doubles would do very well. The principal point is to thoroughly sweeten the soil for their reception, as a compost which clogs and becomes in the least sour is not fitted for the growth of Fuchsias, the roots of which are more tender and have less penetrative power than those of many flowering plants. If this is attended to they will not need a change of soil for years.—J. C. B., in *The Garden*.

SHOW OF BULBOUS PLANTS.

The bulb raisers of Holland are to hold a great exhibition of bulbous plants at Haarlem, to celebrate the fourth century of the existence of the "General Society for Bulb culture." This society has an exhibition once every five years, but it is intended that this display shall exceed any it has ever made. The show will be open from the 20th to the 24th of March. Three hundred and eighty-one medals are offered as prizes. The list of blooming plants to be entered for competition is a very long one, and the show will undoubtedly be one of great variety and brilliancy

IMPATIENS SULTANI.—Gardeners are watching this plant closely for variations in color, and already, according to our English journals, there are now three varieties, those with scarlet, pink and white flowers. Cross-fertilization will probably soon be made to do its effective part in producing other forms not a few.

NEW FORM OF CHRYSANTHEMUM.

In the engraving below we present to our readers the style of a new type of Chrysanthemum, called Anemone Japanese, lately brought forward in Europe. The illustration is somewhat reduced, the original being nearly a quarter larger

hanging in almost perpendicular form, which gives a much more graceful appearance than the stiff form of, say, George Sands, and many others."

The following is what he says of Fabias de Maderanaz: "I consider this the best



CHRYSANTHEMUM FABIAS DE MADERANAZ.

than the figure here produced. A correspondent of the *Journal of Horticulture* says: "This new race is a distinct break from the old form of Anemone Chrysanthems, of which Gluck is a good typical representative. The new section is, too, a great improvement on the old, the long outer guard florets, in some instances,

of the type. It is very elegant in form, having a large high disc or center, of a rosy-lilac shade, tipped with white; the guard petals hanging almost perpendicularly, from three to four inches long or more, of a soft shade of pink, striped with a deeper tint. It is so entirely distinct from any other variety that it must be-

come a great favorite for home decoration or exhibition purposes." The following named sorts of the same class are mentioned as valuable: Mademoiselle Cabrol, with lilac center and delicate blush color guard florets; Sœur Dorothee Souille, center high and wide, white shaded with rose, and pale lilac fringe; Madame Clos, center full, white shaded with lilac and tipped with white, and guard florets of a beautiful rose-violet; Madame Bertha Pigmy, center and guard florets rose-magenta; Souvenir de L'Ardene, deep lilac guard florets, center paler; Duchess of Edinburgh, center lilac, tipped white, and delicate blush-white guard florets.

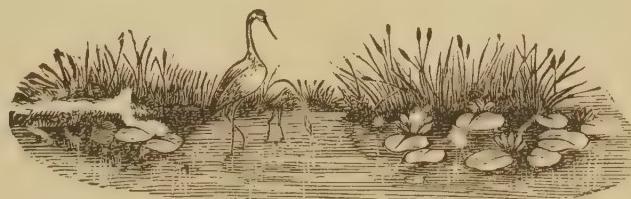
THE CACAO TREE.

The fact that the Cacao tree of commerce, *Theobroma Cacao*, has actually borne fruit for the first time in this country, in the greenhouse of the Botanical Gardens in the Regents Park, is full of interest to horticulturists, for in a temperate climate the pods do not usually mature. There hangs the large brown capsule, to show us that after all there is something in the notion of acclimatization. Let us hope that next year the crop will be more abundant, so that all the fellows of the Botanic Society may enjoy a sip of home-grown chocolate. The Cacao tree was cultivated for the sake of its fruit in Mexico and Peru before the discovery of America by COLUMBUS. The followers of PIZARRO saw plantations in bloom in valleys near the sea. The Emperor MONTEZUMA was so partial to Cocoa that he had no less than fifty jars prepared for his own daily consumption, while his household were allowed two thousand more. HERNANDO CORTEZ was a tremendous chocolate drinker, we are told. The beans were used by the Aztecs as money. The native name was *chocolatl*. In Central America there are still to be found dense Cacao forests, but the seed from the wild fruit has not very much

flavor. The flowers are very insignificant. They have five small petals of a dull pinkish tint, and grow direct from the stem. Those on the trunk and lower branches are alone productive; those on the smaller boughs drop off. As a rule, only a single fruit is matured from a whole cluster of blossoms. The fruit is hard, thick and leathery, the rind dull brown when ripe, and marked with ten distinct ribs. Inside are from twenty-five to thirty-five seeds. The tree is an evergreen, and goes on flowering and fruiting throughout the year. The fruit takes four months to develop and ripen, counting from the time the blossoms fall. The principal harvest months are July and August, but there are at least two gatherings in the course of the year. In Brazil the pulp of the fruit, which has a sweetish taste, is sometimes eaten, and a kind of spirit is distilled from it. Chocolate is drank all over the country by all classes, and travelers assure us that they never really tasted it till they went to Brazil, for it has altogether different taste when made from the fresh beans.—G. LAYARD, in *The Gardener's Magazine*.

THE NARCISSUS GROWING WILD.

"VERONICA" wishes to hear where Narcissus are most luxuriant and abundant in their native habitats. I can speak for Tazetta, for, when in Corsica, I one day saw a sheet of white in the far distance, and well remember greatly wondering what could possibly give rise to the very curious effect this presented. You can judge of my surprise on finding for certain that for many acres the ground was literally covered with Narcissus Tazetta. So closely were the plants growing that it was easy to gather half a dozen blooms in one handful. The scent from such a mass of flowers was something to remember, even in Corsica, where the air is always filled with a most delicious aromatic fragrance.—A. K., in *The Garden*.



PLEASANT GOSSIP.

GROWTH AND BLOOM.

My Fuchsias do not do well; there seems to be a white mold on them, and it gets at the base of the leaves, and after a while they drop off, and no new leaves take their place. What shall I do to make them bloom, and stop such nonsense? I have nine different kinds and not one in blossom. I have some slips sent from California, and I think I will make some of them live.

How shall I manage my Calla Lily? It is of an immense size, puts forth new leaves all the time, but no bloom.

I had what was called a Cuban Lily sent to me from Chicago, four years ago, and I have taken the best of care of it, and tried every way to make it bloom, but as yet no blossom. What shall I do with it, and what kind of a bloom does it have?

Now, I have a Cactus that I have had seven years, but it has never bloomed; tell me, also, how to attend to that.

I have a Lemon tree that I raised from seed. It is about two feet high, and as large around as a broomstick, and it has not appeared to grow any the last two years. I want it to grow so that I can have it grafted. Let me know the course to take with it.

And, last of all, tell me how I can take Rose cuttings, and how I can root them, and have no failure. I have tried so often and do not succeed.

Which do you think the better way to raise Dahlias, from seed or the bulb? I have five different kinds, and usually plant about sixteen, and they make a fine show, and people stop and admire them. I want some more different kinds.—M. P. H., *Atlanta, Illinois*.

Sympathy is the secret by which man rules in the animal world, not less is it the secret by which he makes vegetation obedient to his will. To secure any desired results in a plant we must study its nature and habits, must learn by what laws it is governed, and act in conformity thereto. If we keep plants only to see them bloom, and are governed by this desire, without particular regard to the wants of the plant, if we are not in sympathy with its life, it is probable that our efforts will be mostly disappointing. No language could convey more intelligently the suffering and resentment that these Fuchsia plants experience at the hands of their owner. "Let me alone," they are crying, "I will live if you will give me a chance." The nonsense is not with them, they are struggling for life, literally passing through "deep waters."

At this season, having finished their growth, they should be resting. At the close of summer they needed less water,

and this should have been gradually reduced until the plants had ripened their wood, when only enough would be needed to maintain a little moisture in the soil. During the process of ripening off the plants the temperature should be gradually lowered, in imitation of the seasonable weather. In house culture, where it is necessary to maintain in the rooms nearly the same temperature the year round, this condition of decreasing temperature must be secured for the plants by changing their places from time to time, or removing them from warmer to cooler windows or rooms. It is evident that our inquirer, with the hope of bringing the plants into bloom, has kept them in conditions favoring growth rather than rest. The water supplied has been in excess of the capacity of the plants to take up, and has resulted in mildew; no doubt, a low night temperature has alternated, at least at times, with a high temperature during the daytime. Every thing has been favorable for the spread of mildew, microscopic fungus, and it has not failed to appear.

The Fuchsia is a shrubby plant that makes its growth in a warm temperature, when it requires plenty of water, and at the close of its growing season it produces its flowers; after the blooming season the new wood gradually acquires firmness, and the seeds perfect themselves and ripen, and during this time the demand of the plant for water is less and less; then the leaves fall, and the plant has a term of rest until the seasons bring the warmth that excites it again to growth. Now, it is the healthy growth of the plant which we must aim to secure, and this is to be done by the observance of the natural conditions adapted to the plant. If the plant is in vigorous health it will not fail to bloom. The question for the plant grower, therefore, is not how can I make my plants bloom, but how can I keep them in health. Seek to make them develop themselves, but remember they are under your care, they are not in a state of nature, they are in

artificial conditions, but these conditions must conform, as nearly as possible, to those which they are accustomed to in a natural state, if you hope to succeed with them. It is the plant grower's duty to obtain a conception of the wants and requirements of his plants, and meet them to the greatest possible extent.

The Calla, *Richardia Ethiopica*, is a plant of easy culture, making its growth best in the fall and winter season, in a moderate temperature, a rich soil, and with a constant supply of water at the roots, as it is a bog plant. It completes its growth by blooming, after which it has a resting season during the summer. When the warm weather sets in the plant can be turned out of the pot into the open ground of the garden, and there be left without further attention until the end of August or early in September, when it should be lifted and potted in rich, fresh loam.

We do not know what plant is meant by the name, Cuban Lily; if any of our readers know it, we trust they will give the information in these columns.

The name, *Cactus*, is one of too general import to convey an idea of any particular plant among a group having wide differences. With comparatively few exceptions, however, the plants of this order should be kept warm and dry during the winter season. With the arrival of spring and a higher temperature give water gradually at first, and afterwards, when growth commences, somewhat more freely.

The Lemon tree probably requires repotting in fresh soil. It can be left as it is for the present, but in the latter part of February turn it out of the pot, reduce the ball of soil without disturbing the roots too much, and repot it, using equal parts of fresh loam, leaf-mold, sand and old manure, all well mixed together; give water, and a warm temperature, and a full exposure to the light.

Rose cuttings of many kinds can be easily rooted in pots of sand covered with a glass to retain the moisture. Make the cuttings each with a leaf at the upper end, and insert them around the sides of a small pot of sand, and cover with a bell-glass or a tumbler, and keep it in a warm, light place. Such cuttings can also be rooted in a saucer of mud, kept constantly moist. Most varieties of

Hybrid Perpetual and Moss Roses are more difficult to root in these ways than the different kinds of Monthly and Tea and Climbing Roses, and require the aid of a hot-bed or propagating house.

Raising Dahlias from seed is interesting, because new varieties are thus obtained; that the seedlings will prove satisfactory can be known only after blooming. By increasing plants from the tubers approved varieties are continued, and there is no uncertainty in the result.

FAILURE OF LILIES.

For several years I have been stocking my flower garden with plants, making Roses and Lilies a specialty. Of Roses I have nearly thirty varieties; of Lilies, perhaps, a dozen; candidum, excelsum, tigrinum, atrosanguineum, and some of our native Lilies, with some common sorts, do well; but my experience with auratum, tenuifolium, roseum and longiflorum has been disastrous. I follow treatment as prescribed, and do not blame any one. Longiflorum died the first year; tenuifolium had one flower, and upon lifting the bulb it showed signs of decay; auratum and roseum scatter into dozens of small bulbs, the old ones growing smaller, and the blossoms fewer each year. There will be a small bulb near the surface of the ground, then a long thread, another below, and, possibly, still another. I replanted the larger ones, and have in the cellar a tub of little ones, ranging in size from a Pea to a Filbert. I am in the dark as to the cause of failure of the varieties mentioned, and would like you to tell in some number of the MAGAZINE what treatment to pursue. There must be some reason for such conduct on the part of the plants, and I know it is not from any teaching of yours. We have an old rich soil, and our plants get good care. We lay our Roses down, and cover the Lilies lightly with leaves and litter. I had one branch of Moss Rose with over forty blossoms and buds at one time.—MRS. C. P., *Gouverneur, N. Y.*

We hope experienced Lily growers will notice particularly this communication, and offer their opinions and advice in regard to it for publication in our columns. We will make only one suggestion, which is, that a new site be selected, and, if possible, the northern or eastern slope of a hillside, where the soil is deep and rich, and that there some strong, healthy bulbs be planted for another trial. This planting should be made early next autumn, and the soil can be manured heavily with old manure the coming spring and bear a crop that will make but little demand upon it, and be off the ground by the end of summer, or sooner. Such a trial may lead to the discovery of some fact in relation to the soil or site where the bulbs have been tried and failed, that may explain the difficulty they have contended with. In the

meantime, this question will be considered to be before the house, and appropriate remarks in reference to it in order.

DIVIDING DAHLIAS—MILDEW.

My Dahlias when pulled up had from ten to twenty large tuberous roots attached to each. Being a novice in growing these flowers, I asked a florist how I could distinguish those bulbs that had eyes; he replied that Dahlia bulbs had no eyes, but grew from crowns. Now please explain the manner in which florists obtain their bulbs for sale, and whether any of those obtained as I have mentioned will grow if separated from the main center. If so, how can I distinguish them? I simply wish to increase my display of flowers next summer.

What will prevent or destroy mildew on the foliage of *Lilium candidum* and *Perennial Phlox*? This blight has, for two seasons, one wet and one dry, destroyed the entire foliage of these plants, making sad looking flowers.—S., Benton Harbor, Mich.

The Dahlia tubers should be kept attached to the old main stem, in a warm, dry cellar; in spring bring them out and give them a place in a hot-bed or a cold-frame, covering the tubers with soil up to the point of attachment to the stem. In a short time eyes will develop at the base of the stem, which can be divided with a tuber or more attached to each part or division of the stem. Each separate part can then be set out in the open ground or border, where it is wanted to grow and flower. This subject was explained by the aid of an engraving in our last number.

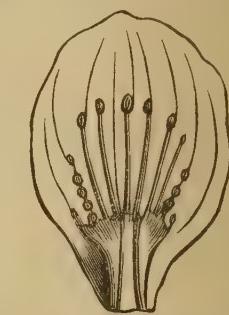
The conditions favorable to the spread of mildew on plants are prevalent enough both in the open air and under glass. The best preventive is maintaining the plants in a state of vigor, when they are able to resist its attacks most successfully. The *Perennial Phlox* and *Lilium*, when allowed to stand in the same place for a number of years fill the soil with their roots and exhaust it, and thus enfeebled, become a prey to mildew. To have the best results with *Perennial Phlox* the roots should be taken up, and divided and reset in fresh soil, every other year, or at the longest once in three years. *Lilium candidum* is benefitted by removal once in three or four years; and both of these plants should have a good top-dressing of old manure every fall, if the best results are desired. The best time to move *Lilium candidum* is in August, or before it commences to make a new growth of roots. *Perennial Phlox* should be moved, if possible, at the close of the autumn season, when in a dormant state.

THE GRASS OF PARNASSUS.

On most mountain bogs in Britain one can still find a few pretty white flowers of the rare and curious Grass of Parnassus. They have each five snowy petals, and at the base of every petal stands a little forked organ, with eight or nine thread-like points, terminated, apparently, by a small round drop of pellucid honey. Touch one of the drops with your finger, and, lo! you will find it is a solid ball or gland. The flower, in fact, is only playing producing honey. Yet so easily are the flies, for whom it caters, taken in by a showy advertisement, that not only will they light on the blossoms and try most industriously



PARNASSIA CAROLINIANA
—FLOWER, WITH BRACT AT
THE BASE OF THE SCAPE.



PARNASSIA PALUSTRIS—
MAGNIFIED PETAL WITH
ITS NECTARIES.

for a long time together to extract a little honey from the dry bulbs, but even after they have been compelled to give up the attempt as vain, they will light again upon a second flower, and go through the whole performance again, *da capo*. The Grass of Parnassus thus generally manages to get its flowers fertilized with no expenditure of honey at all on its own part. Still it is not a wholly and hopelessly abandoned flower, like some others, for it does really secrete a little genuine honey quite away from the sham drops, though to an extent quite incommensurate with the pretended display.—From "Queer Flowers," by GRANT ALLEN, in *Popular Science Monthly*.

Four species of *Parnassia* are found in this country. GRAY gives the regions they inhabit, as follows: *P. parviflora*, northwest shore of Lake Michigan; *P. palustris*, shore of Lake Superior and eastward; *P. Caroliniana*, wet banks, from New England to Wisconsin and southward; *P. asarifolia*, high Alleghanies of Virginia and southward.

We should be obliged to any of our readers for pressed specimens of these plants.

SHOOTING STAR.

When is the best time to divide the roots and transplant *Dodecatheon Meadia*? Will it do well in the greenhouse, or for a house plant?—MRS. D. P.

The roots of *Dodecatheon Meadia* can be divided in the early spring. The plant is not desirable for house culture.

A. D. EIGHTEEN HUNDRED AND EIGHTY-FIVE.

Stranger, we give thee welcome to our land;
 We know not all things borne by thee,
 But thou art new from an Almighty Hand,
 And through the eyes of faith we see;
 All cold and snow-draped, as thou art, we know
 Thou hast a mission, and the end will show.



Sweet flowers we see, and soft and sunny days,
 In thy wide lap, a bounteous store;
 We know that birds, with happy roundelay
 Will set the woods atune once more;
 That friend with friend will smile away the hours
 And beauty kiss the meadows and the flowers.

Ah, me! young year, not all thy wondrous freight
 Is rimmed with light, or gold embossed;
 Rivers we see, dark as the brow of fate,
 And marvel how they shall be crossed;
 And heavy, dark-lined shades may, like a pall,
 Around our heart-loves in thy presence fall.

Great Master of the Years, to Thee we look
 For grace to meet what Thou shalt send;
 One other leaf is turned in time's strange book,
 And one page nearer to the end;
 But shall we wear the glory of Thy light,
 And murmur if the shadow touch our sight?

God bless the year, and purge it of the sin
 And falsehood other years have known;
 In its young days let love's sweet song begin,
 Nor cease until it reach the throne—
 His throne, 'round which an everlasting morn
 Rests on the hills where no more years are born.

—WM. LYLE.

RED SPIDER.

The experience of MRS. J. V. RHODES, in the December number, is very much the same as mine. I never found any permanent relief from the red spider. By constantly sprinkling, and, a year ago, burning a little sulphur frequently, could keep my plants in a healthy condition. I am positive in my own case that the wood work becomes infested with them, and as soon as the weather is sufficiently warm, say in February in New Hampshire, hatch out, not troubling much in the cold short days. I used to think the only remedy must be like WHITTIER's for the boiled dinner, burn the house down. The grass would be covered, and later on they were crawling over the outside of the house in countless numbers, and inside in rooms where plants were never kept. I often found them, when cleaning, in cracks about the floor, and other parts of the house, where they were larger than those on the plants, but red, and I conclude of the same species. I always read any article on that subject with much interest, and have tried all the remedies, but the effect, if amounting to anything, only lasts for a few days. I never could see any good in tobacco in any form.—A. S. C.

WINTER NEIGHBORS

The English house sparrows, that are so rapidly increasing among us, and that must add greatly to the food supply of the owl and other birds of prey, seek to baffle their enemies by roosting in the densest evergreens they can find, in the Arbor Vitæ, and in Hemlock hedges. Soft winged as the owl is, he cannot steal in upon such a retreat without giving them warning.

These sparrows are becoming about the most noticeable of my winter neighbors, and a troop of them every morning watch me put out the hens' feed, and soon claim their share. I rather encouraged them in their neighborliness, till one day I discovered the snow under a favorite Plum tree, where they most frequently perched, covered with the scales of the fruit buds. On investigating, I found that the tree had been nearly stripped of its buds, a very unneighborly act on the part of the sparrows, considering, too, all the cracked Corn I had scattered for them. So I at once served a

notice on them that our good understanding was at an end. And a hint is as good as a kick with this bird. The stone I hurled among them, and the one with which I followed them up, may have been taken as a kick; but they were only a hint of the shot gun that stood ready in the corner. The sparrows left in high dudgeon, and were not back again in some days, and were then very shy. No doubt the time is near at hand when we shall have to wage serious war upon these sparrows, as they long have had to do on the continent of Europe.—JOHN BURROUGHS, in *The Century*.

TREATMENT OF BECONIA REX.

In the December number of your MAGAZINE, you asked for instructions in growing the Rex Begonia successfully as a window plant. A few words from me, perhaps, would not come amiss to those, who, like myself, love to grow plants. Among my collection of plants I have none that I admire more than the ornamental-foliaged Begonias. Among them I have Queen of Hanover, Th. O'Donohue, B. Louis Chretien, and various others with which I have splendid success, not luck, in growing in an ordinary sitting-room, heated with an anthracite base burner. When I say some of the leaves on Queen of Hanover measure thirty-three inches in circumference it will not look as though the plant was in bad health. My mode of treatment is as follows:

I put them in soil composed of equal parts leaf-mold, sand and well decomposed manure. Some of the pots are sitting in a galvanized iron pan partly filled with sand, which I always keep damp, before a south window. I give them plenty of water at the root, and every two or three weeks give the plants a thorough washing with clean water, using a syringe which throws the water with sufficient force to wash all dust from the leaves and give them a bright and healthy appearance. About three times a week I throw a fine spray over most of my plants, using an atomizer, not sparing the Begonias. One thing should be borne in mind, when you sprinkle the leaves wet both upper and lower sides; dropping a little water on a leaf usually causes it to shrivel and die. Why some writers say never wet the leaves of

a Rex Begonia, I do not know, perhaps they think in its native home, India, rain never falls.

Our main object in successfully growing any plant is to imitate nature as near as possible. I always keep a vessel of water sitting on the back part of the stove to evaporate, which overcomes a certain amount of the dryness in our sitting-rooms, which is, injurious to plants. Maintain a temperature in daytime ranging between 65° and 70°, and at night from 50° to 55°, rarely ever falling below 50°.—W. L. G., Remington, Ind.

WARM OR COLD WATER.

Our attention has been called to some statements in *Henderson's Practical Floriculture* in regard to the use of cold water for watering plants in the greenhouse, where the opinion is expressed that cold water is not injurious, that plants in a temperature of 80° might be supplied with water at 40° without harm. Our advice to plant growers is to use water about the temperature of the air of the house, or, if possible, a little warmer. From our own observations for a number of years we are quite satisfied that young plants constantly supplied with cold water taken from an exposed reservoir are greatly retarded in growth, and many become diseased and die from the same cause. Plants supplied with warm water will make a far more vigorous growth than those given cold water, other conditions being the same. We hope that any of our readers who may have had experience that will give any light on this subject will make it known in our pages. Although our opinion in favor of the use of warm water for plants in active growth, and especially young plants, is a very positive one, and one which can be fortified by abundant evidence, we are quite willing that any one holding a different view on this subject should express himself freely.

HEATING A GREENHOUSE.

In the August number, I believe it is, you published a prize article on the best mode of heating a greenhouse. I studied over the scheme presented, and came to the conclusion to try it in a new house I was just building. My new greenhouse connects a shed and office, and is fifty-six by twenty-four feet. I tried the forked

flue, and after a month or six week's trial am more than pleased with it. I have another house, sixty by twenty-two feet, and have two furnaces in it, and cannot keep as high a temperature there as in the new house.

I value your MAGAZINE highly, and want you to continue me on your subscription list another year. Have already saved ten times the amount asked for it.—MRS. E. G. C., Cleveland, Ohio.

YELLOW ROSE FOR THE HOUSE.

If C. E. M., who inquires about the treatment of Monthly Roses in November MAGAZINE, will cultivate Perle des Jardins in place of Marechal Neil, her chances of success will be largely increased. Although a very beautiful Rose, the Marechal Neil is no longer the yellow Rose of commerce. In looking through several large commercial Rose-growing establishments, last summer, I was surprised to find this once universal favorite so sparingly cultivated, and the few specimens I did meet with were retained, I think, more for propagating purposes than for blooms. The late Mr. ELLWANGER, in his book of Roses, says, "the inexperienced would do better not to attempt its culture." The continued demand for plants of Marechal Neil is largely due to the fact that buds of the Perle des Jardins are supplied to customers for Marechal Neils by most of the city florists. For three Monthly Roses, C. E. M. could select no better varieties than C. Mermet, Niphétois and Perle des Jardins. By all means plant in natural border, if possible, in preference to pot culture. If quick as well as satisfactory results are desired, a good plan would be to plant three plants of Solfatéf're, a vigorous growing Noisette, and bud with the varieties mentioned. Flowers from the budded plants will be larger and finer than on their own roots.—LEVANT COLE.

SWEET PEAS.

I have promised myself a long time I would give you my experience in raising Sweet Peas. Last spring, I planted four rows twenty-five feet long. I dug the trenches eight inches deep, leaving a space a foot wide between two of them, then a space of three feet, and then two other rows a foot apart, the same as the first. I filled the trenches half full of

sand and hen droppings, and over these materials a light sprinkling of earth, and then the Peas, I should think from ten to fifteen to the inch, and covered them some three or four inches deep. The seed was planted as soon as the ground was in good working order, and the plants came up in due time and commenced to grow. I brushed them in April with brush from five to six feet high, but which was not near high enough, and I had to drive stakes every six or eight feet and stretch cords to a height of eight feet to support the luxuriant growth. The plants commenced to bloom the middle of June, and I commenced to sell flowers, I think, the twentieth, five days after, and continued the sale until September, and received over twenty-five dollars for cut flowers from those plants. So, you see, I made it quite profitable. I had only one variety, the Painted Lady. It seemed as though I gave away half as many as I sold. A great many people came to see them, and all joined in saying they were as fine a sight as could be found. I do not think I planted a half pound of seed, and should have felt repaid if I had not sold a flower.—*, *Southport, Conn.*

THE GIANT PUFF-BALL.

The November number of your MAGAZINE mentions a large specimen of *Lycoperdon giganteum*, popularly known as Puff-ball, found by a correspondent, near Canandaigua. Your allusion to the distribution of the species leads me to think that you may be interested to know that Prof. CHARLES C. STOWELL, of Brighton, has recently forwarded from Belle Plain, Iowa, a specimen measuring sixteen inches in diameter, to the Cabinet of the University, where it is now deposited. I enclose the following allusion to one of much greater size, mentioned by the distinguished botanist, Prof BESSEY, of Iowa :

"My friend, Prof. R. E. CALL, has handed me a photograph of a Puff-ball, the largest on record. The fungus was found by him in Herkimer Co., N. Y., in 1877, and as it was impossible to preserve it, careful measurements were made, and photographs of it were taken. It was irregularly oval in outline, and much flattened, instead of approaching the spherical form, as is common in the large Puff-balls. Its largest diameter was five feet four

inches, its smallest four feet and six inches, while its height was but nine and a half inches. In reference to it Prof. CALL described it as "much larger than the largest wash-tub we had at home."

The specimen undoubtedly belonged to the species known as the Giant Puff-ball, *Lycoperdon giganteum*, and it was by far the largest of any of which I have been able to find measurements.—Dr. S. A. LATTIMORE, *Rochester University, Rochester, N. Y.*

BEGONIA REX.

I have a plant of this Begonia which I started from a leaf, five or six years ago. I keep it in a north window, summer and winter. At first I set it on the north porch summers, but the sun, wind and rain did not improve its beauty. I let it grow one-sided, only turning it for a day or two, when the leaves were too crowded. When it is stated that a plant requires a generous supply of water, we are apt to be too generous. I killed two or three such plants last year. My Begonia has charcoal drainage, garden soil mixed with sand, and liquid manure when the other plants have it. It now has six full grown leaves, seven half or two-thirds grown, and eight blossom stalks, from the four longer of which the blossoms have fallen. It was put in a six-inch pot last fall without disturbing the roots. I have a new one, with four little leaves, from a leaf rooted in a bottle of water.—MRS. D. B., *Norwich, N. Y.*

VERBENA AS A HOUSE PLANT.

Although the Verbena has never been held in high esteem in collections of house plants, in consequence of its peculiar habits and diseases, yet it is by no means impossible for the amateur to attain to a fair degree of success in its culture, if the necessary thought and labor are given to its requirements.

The Verbena likes a progressive, growing condition, and dislikes a dormant state or one of retarded growth; while very high temperatures are to be avoided, still sufficient heat should be applied to secure a continuous growth, never allowing the plants to remain in a state of absolute rest, which, with the Verbena, means disease and decay.

It is the experience of all growers that healthier and far more vigorous plants

are obtained from cuttings rooted in March and April than from those propagated in the lower temperature of January and February. It is of the first importance to start with good, healthy plants. New growth, above and below ground, is essential to growth. Discard old and spent plants that are exhausted by blooming and seed-bearing.

The Verbena is not well adapted for early winter blooming, as it delights in an abundance of sunlight and air; but with plants in a perfect state of health, and in suitable situations for light, as the days lengthen and brighten late in the winter and spring months, they will afford a profusion of flowers of exquisite colorings and dainty perfume that will repay the time and care given to their culture.—J.

A GARDEN JOURNAL.

January 2. The Roses that were cut back the 24th of November were in full bloom for Christmas and New Years. The Camellias have flowered wonderfully this winter, and at this date the large plants are like banks of snow for whiteness. The Orange trees at this date are flowering finely. Our greenhouse is pretty warm, which brings these plants on early in the season. Cut the last Chrysanthemum flowers, variety *laciniatum*.

2. Uncovered the Hyacinths that were buried in the soil, under the potting shed, and brought them into the greenhouse, placing them in rather a shady place for a week or so. They have done well, and the pots are filled with roots, and the flower stalks an inch or so in height.

4. Repotting stock Coleus.

5. Putting a few cuttings of choice Coleus to strike. Two degrees below zero to-day.

7. Putting in cuttings of Stevia serrata, as the old plants have done blooming, and some of Stevia Lindleyana intended for next winter bloom, and some cuttings of hard-wooded plants, Diosma fragrans, etc. The Chicory that was put in large flower pots to force the 17th of last month was used to-day. It had made a growth of twelve to fourteen inches in length, and was as yellow as gold and very tender.

8 and 9. Repotting some Fuchsias intended for spring and summer bloom, and a few other blooming plants. The

Chinese Primulas are, at this date, in full bloom; some very fine semi-double white and semi-double rose are very fine varieties. The Fern-leaf varieties are fine, every flower being beautifully fringed. Alba plena, too, is making a fine show, they are flowering in pretty large pots, and at present are like little banks of snow.

10. Cleaning the snow from the grapevines, for fear of a smash, and also from the Endive frames, and giving a little air, for they have been covered up close for some time. Picking a nice lot of Marie Louise Violets to-day. There are thousands of flower buds on them, just ready to open, if we could only take a little more sun.

11. Bringing Fuchsias out of the cellar where they were placed last fall, because we had no room for them in the greenhouse. They show some signs of growth, so I shake them out and pot them.

12. Repotted Lemon Verbenas. They have been lying under the stage in the greenhouse, and are now starting into growth.

14. Repotting Crystal Palace Geraniums, and also some Ferns that are getting pot-bound.

15. Looking over my seeds that have been left from last year, and sowing a few of them in the propagating bed to test.

16. Prepared my list for purchasing seeds.

17 and 18. Shifting and cleaning off dead leaves from the Double White Primulas, giving them more room on the shelves; other plants that are too much crowded am shifting so as to give them more sun and light.

19. Sorting vegetables in the root cellar. Cleaning off all dead leaves from the Celery, Cabbage and Endive.

21. Potting off Chrysanthemum cuttings from the propagating bench, and putting in a few more choice ones to strike.

22, 23 and 24. Filling the ice house with ice.

25 and 26. Cleaning and tieing up Carnations, and giving them a good syringing to clean off the red spider, which is beginning to show itself on some of the plants. Laelia autumnalis is now in bloom; several plants of Laelia anceps will soon bloom, together with Dendro-

bium nobile and Oncidium ornithorrhynchum, etc.

28. Putting in to strike some cuttings of a choice Heliotrope, Swanley Giant, and some climbing plants, Rhyncospermum Jasminoides variegata, Cissus rhombia and Ampelopsis sempervirens.

29. Removing the snow from the potting shed and other buildings that are in danger.

30. Potting off Coleus and Achyranthes from the cutting bed.

31. Commenced to prune out door vines, which is a little earlier than last year.

PRUNING ROSES.

The *Revue Horticole*, referring to an article which appeared in the *Journal des Roses*, from the pen of M. VIVIAND MOREL, offers to its readers the following statements, which M. MOREL deduces from well observed facts.

1. If in the spring some Rose bushes are pruned, and, on the contrary, some others are allowed to remain without any suppression of the branches, the latter will come into bloom about a fortnight before the others; their flowers will be more numerous, and at the same time less beautiful.

2. If some Rose bushes are completely pruned, and upon some others are left only some twigs, these latter will have the same advance in time of bloom.

3. If two Rose bushes are pruned alike, one at the end of September, and the other in February, the one pruned in autumn will flower first.

4. If, toward the middle of September, the branches of a Rose bush are laid down horizontally, and those of another bush in exactly the same condition are left in the natural position, and in the spring, both be pruned alike, the bush with the branches laid down will bloom first.

5. In pruning Rose bushes before vegetation starts, that is to say, in February, bloom on them will be obtained in advance of that which will appear on bushes pruned later.

6. Pinching the young shoots, as they start on bushes after pruning, retards blooming very much. In this case the pinching should be done before the flower buds appear, or when the young shoots have only three or four leaves.

HORTICULTURAL MEETING.

The annual meeting of the Western New York Horticultural Society will be held in this city, commencing on the 28th of January. Reports and communications on a great variety of subjects will be presented, and interesting questions discussed. Every one in this part of the country who is engaged, directly or indirectly, in any branch of horticulture should be a member of this society, read its proceedings, and, if possible, attend this annual meeting as a worker or a listener. The aim and results effected by the society are good, and every member is better for his connection with it. Let all who possibly can attend.

KEEP A RECORD.

The "Garden Journal" which has appeared in each of our issues for a year past closes with the present month. We have reason to think that this diary of a year's work in the garden has been suggestive and helpful to many readers. Such a record is valuable for reference, and hints for practice may be gleaned for years to come. To keep a systematic record of all garden, orchard and farm work would be of great benefit to every one so engaged, and would probably be the means of preventing many an error, and of correcting mistakes that may have been made. Try it for a year, and report opinion concerning it.

RESURGAM!

" There is no God," he said, and turned away
From those who sought to lead him to the light.
" Here is a Violet, growing for a day;
When winter comes, and all the world is white,
It will be dead. And I am like the flower,
To-day, here am I, and to-morrow, dust.
Is life worth living for its little hour
Of empty pleasures, if decay we must?"

The autumn came, and under fallen leaves
The little Violet was hid away.
" Dead, dead," cried he. " Alas! all nature grieves,
For what she loves is destined to decay;
Soon, like the Violet, in the breast of earth]
I shall be hidden, and above my head
A stone will tell the record of my birth,
And of my nothingness when I am dead."

Spring came, and from the mold the little flower,
He had thought dead, sprang up to sweetest bloom;
He saw it, and his heart was touched that hour,
And grasped the earth-old mystery of the tomb.
" God of the flower," he said, with reverent voice,
" The Violet lives again, and why not I?
At last, my blind eyes see, and I rejoice,
The soul within me was not born to die."

—EBEN E. REXFORD

OUR YOUNG PEOPLE.

STELLA RAY TO HER AUNT.

December 27, 1884.

My Dear Aunt: Now that Christmas has come and gone, there really are so many things I want to say to you that I shall just write them down and post them off, lest I never get caught up.

Papa is still suffering with his hip more than for years before, and brother Will's presence during the holidays is not only a help to him, but adds much to the general pleasure. The children were wild with delight to see him, and his coming proved a material addition to the stock of gifts they displayed Christmas morning. While they were in the midst of their little carnival, mamma was called to the rear entrance, and there stood Mr. Haven with his voice full of Christmas greetings, and carrying a basket with a towering object in one end loosely pinned up in thick paper, which he carefully lifted out, to be directly given to me, from his sister, as a "festival hoffering," he said. It proved to be a pot-plant of Rosemary in full bloom, and I assure you it is a perfect delight to have it in the room. I must say that I quite approve of Miss Haven's taste for sweet-smelling herbs, and am glad to have this as a beginning for myself. In her own house, however, a sight of her rosy, wholesome face and tidy ways make one feel that a part of the fragrance noticeable must emanate from her exquisite cleanliness.

But there was more than my pot-plant in that basket. There was one of the plum puddings that I had helped make, all done up in layers of wrapping, like a mummy. As Mr. Haven took it out and laid it on the table, he remarked to mamma:

"It is nicely 'cured' now, though more hage wouldn't 'urt it. It must be boiled 'ard for 'alf an hour before dinner, and eaten with brandy sauce."

(Of course, we don't make *brandy* sauce at our house, but we made a sauce good enough to help "worry down" the great, round slices of that luscious pudding.)

While I was sniffing and snuffing around

my Rosemary, I suddenly thought of Miss Haven's box of caps. She always wears funny little ones, which she is unable to make and unwilling to buy and wretched without. So I had made her a set of them, black ones with a bit of gay ribbon for morning, and white ones for afternoon, and rushing out with them, I raised the lid and gave the brother a peep as I set the box in the basket, which set him to chuckling, and then, seeing me stare at the mummy on the table, he continued his chuckling and quickly slipped away.

Our Christmas bird had been steamed the day before, and only needed a good browning in the oven to make it ready for the carver, and other things were so arranged that we could go to church, serving maid and all. But you know mamma's ways.

At church, I saw a grown-up girl with a new winter hat on, who has been wearing to Sunday School, up to this time, the same sun-brown, straw hat that she wore all last summer. I had often felt sorry for her as I noticed her shrinking ways, and have tried to realize how much resolution it must cost her to sit in that class of well dressed girls who never speak to her. Imagine my surprise, Auntie, when, after church, she stepped up to me, and while trying to express thanks for the new hat, burst into tears, and pressing my hand walked away. And so the cat was out of the bag! I never can do anything on the sly.

Of course, she got my name through some carelessness of the milliner, who promised me to trim the hat and send it to the girl early Christmas morning, with no word, only that it was from a member of her Sunday School. It seemed such a small thing to do when I found I could pinch out enough money for it; and now it seems smaller yet, since my share in the pleasure of it is all spoiled. For how absurd it is for her to feel indebted for it to a girl not much older than herself.

I think the happiest one at our table that day must have been the paralytic

woman, of whom I wrote you, Mehitable Cutter. Although she cannot talk, she could hardly eat for laughing. Her mind must surely be weakened by the disease from which she is suffering. She seems as easily amused as a child, and as innocent, too. I always sit by her and cut her food, and then she feeds herself. I suppose mamma must have seen that this service was repugnant to me, for she kindly proposed that I should serve the tea and coffee in her stead for a few days, which shamed me so that I declined, and fell to wishing that I could somehow acquire a little of her gracious unselfishness.

When Will first got home and came suddenly upon Mehitable, sitting in his favorite arm chair, he could not hide his disgust. But when he found that the aversion he felt was worrying mamma, he put his arms about her, and said, in his winning way, that she only lived to know how to give "the greatest good to the greatest number," and that she might bring the County Infirmary into the house, if she wished, and he would make the soup; which, of course, made her smile, while she reminded him of Mehitable's poor old mother at home, who is now having a nice rest from the care of her, so that this change is good for both. Then he kissed her and petted her and called her lovely names, but told me, privately, the next minute, that his first sight of her, and the thought of her wretched condition took the edge off his anticipated enjoyment. I knew just how he felt, for I had caught myself mentally revolting more than once, but I flared up and answered,

"I guess it will take the edge off your enjoyment if you ever find yourself in her condition; and you've no security against it."

I did not tell him that papa had set me to giving her electricity every day, with one of those cunning little French batteries. He is anxious to see if her speech cannot be restored as well as the use of her paralyzed arm; and now, with this object in view, I have been interested in her myself.

After our Christmas dinner, Will drove papa to see his patients, and a friend of mamma's called and took her off on a round, to learn for themselves how some of their poor families were spending Christmas. They belong to a visiting

committee appointed by the "Ladies' Benevolent Society," and have certain wards assigned them. They are very dear friends, and so I knew mamma would have a pleasant time aside from the good she would do in her mission. And papa was sure to enjoy having Will all to himself after so long an absence. He is very fond of him, and anxious about him, too. Indeed, so we all are. He is called very handsome, and, added to his naturally buoyant spirits, he is in rollicking health. You remember how amiable he used to be, always making me ashamed of my wayward tempers; well, he is just so yet. I said, one day, to mamma, that I wished I could be as free of worry as he is, and she said, *she* did not. And then it was she told me that she and papa are beginning to fear that his disposition to avoid all the disagreeables of life will incline him to shirk, in his off-hand way, many of its duties and responsibilities.

These are mamma's own words; I am not wise enough to thus express myself, nor to have foreseen what she fears. Neither could I have told you, only that he has always been such a favorite with you. But I am not going to believe any thing can go wrong with my splendid brother. He is only nineteen, and there are two whole years for him to sober down in; if he can. In order to keep a stronger hold on him, I have coaxed him to promise me a letter each week, giving me an outline of his college life, its pleasures and its trials. He was loth to promise, but when he saw I was just ready to cry, he said, "O, yes, I'll send you an *outline*, and you can fill it up and make me out as good as you wish." And then he teased me about my journal, (that is to be,) and my "weather notes," and got in return more than he expected, for I had taken notes of last month's storms that swept over the country; my own thermometer showing the temperature outside my window to be nearly down to zero on the morning of the 18th, and of the cyclone that destroyed buildings and killed two men "just north of New Orleans, on the night of the 22d." Query. What makes cyclones come after night? They are quite awful enough by daylight, when people can see where they are going to.

But, Auntie, I cannot write much longer

now, and have not said half I want to. Right in front of me stands a spotted-leaved Begonia, which has grown in a drooping form, as such plants are apt to do, when it suddenly sent up a thick-stemmed, straight shoot, which has grown upward fully three feet by measurement, and two of the leaves are eleven and one-half inches in length. And I must speak of a "Mosquito plant" standing near by. It is now in full bloom, and its blossoms look like a swarm of mosquitoes with bright pink wings wide-spread above their projecting legs—or stamens.

Pray, thank Uncle George for me, for the wonderful blank journal he sent me with its adjustable monthly duplicate divisions. He certainly must have ordered

it made at your instigation. What a stir there has been, to be sure, because I happened to mention that I should begin a journal with the New Year. As I don't propose to turn my heart inside out on its pages, as some people have done, I might have called it a *Record of Home Life*, or any other name as well, since the words "Journal," or "Diary," excite so much quiet amusement.

I intended to have given you some items about grandpa Starr, and some anecdotes of the children; but they will keep. Lovingly, STELLA.

NOTE.—Readers of "Our Young People" may be glad to know that Stella Ray's characters and incidents are not drawn from the imagination. The paralytic woman bears her real name.—MARIA BARRET BUTLER.

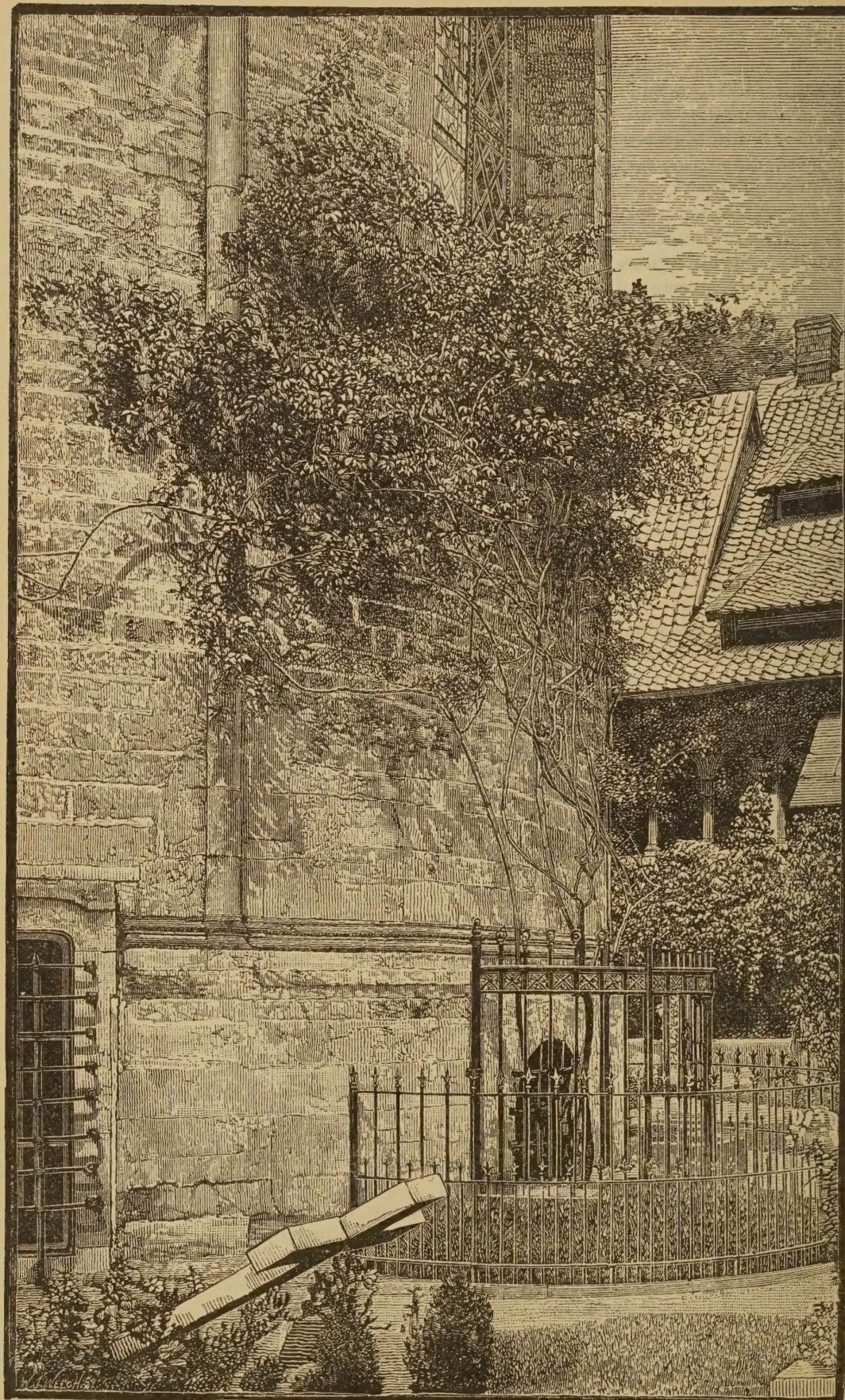
THE ROSE OF HILDESHEIM.

A wonderful Rose tree clammers up the ancient tower of the "Dom," or the Cathedral of Hildesheim, in Lower Saxony, and is an object around which several beautiful legends cluster. The plant (illustrated on the following page, from an engraving in the *Gardeners' Chronicle*) is "certainly of a great age, as by researches made in the year 1883, it was found that its roots are really under the foundation stone of the walls, and therefore it has been assumed as a fact that the Rose was there before the building began, and for some reason was preserved during the time the structure was raised, and has been moreover during all the intervening centuries an object of great veneration and care. The legend relates that Ludwig, the son of Charlemagne, fixed his residence at Elze, on the Leine river, because of the immense forest and swampy ground there, where game of all kinds abounded. One day the Emperor went a hunting, mounted on a strong horse, and accompanied by a great following of courtiers, huntsmen and hounds. They had ridden for several hours, when suddenly a white stag sprang out of the bushes, so stately and large as had never before been seen, and the Emperor resolved to hunt it, be the consequences what they might. He urged on his hounds, gave his horse the spur, which sprang forward so rapidly that the hounds were soon left behind.

"But faster fled the stag, which seemed as if nothing could tire it; and so pro-

ceeded the hunt, over hill and dale, stick and stone, but the Emperor never reached the stag; so came the quarry, whose coat glimmered through the dark forest, to a stream, into which it plunged, swam across, and disappeared in the gloom beyond. The rider forced his horse into the stream in the vain pursuit, but it was thoroughly exhausted and was soon carried away and drowned, he himself swimming to the bank. Just there a little hill reared itself, and up this clambered the Emperor, intending to wait till his retinue came up. He blew his horn, like a Roland, till it all but burst, but no one came; and he gave himself up for lost, and believed that here he must end his days; and being a pious monarch he took from his neck a relic of the Virgin, and hung it on a wild Rose bush, that grew by the side of a crystal fountain; he then knelt down and prayed that she would not desert him, but permit him to be rescued. Being calmed by his devotions, he lay down on the soft moss by the spring, and slumbered, when suddenly a voice cried out of the clouds calling him by name, telling that so far as the snow reached he should build a church to the honor of Mary; and before he had recovered his astonishment it began to snow, although it was the middle of summer.

"It did not last long, but a piece of the moss was covered, and reached unto the Rose bush, showing the ground plan of the walls, the tower and of the pillars and



THE ROSE OF HILDESHEIM.

the altar. Presently his retinue came up, and they also saw the wonder, and the place was called 'Hilgen Snee,' (Holy Snow,) because of the wonderful fall. What the Emperor promised was soon carried out, for he was a rich and mighty prince. There came stonemasons and built a beautiful church, but the Rose the Emperor would not allow them to grub out. They carried the walls over its roots, so that it stood under the high altar, and it grew and threw; and it is said that when it puts forth but few leaves, and has but little vigor, then heavy misfortunes befall the church of Hildesheim. So says the legend. The annalist Saxo says that in the year 815 A. D., when Ludwig had crossed the Leine, and had come to a place where the church now stands, he formed a camp

for a time, and had the relics from the royal chapel set up there, and when the hunting camp was broken up the chaplin in charge of the relics forgot them, leaving them behind at the place where offerings had been made, and, going back for them, found them so overgrown by the Rose that in spite of all endeavors they could not be detached, and on account of this wonder a chapel was erected, and years after the place, now become a town, was created a bishop's see, and Gunthar was the first bishop. The fourth bishop in succession from him, Altfried, built additional structures, one, a chapel, being dedicated to St. Cecelia; and among other alterations, the original chapel became the crypt of the new—the new buildings being consecrated in 872.



FARM AND STOCK CYCLOPEDIA.—Waldo F. Brown, late editor of the *Cincinnati Enquirer* and a well known and esteemed correspondent of several of the leading agricultural journals of this country, is the author of a handsome cyclopedia for the farm, which has just been issued from the press of Jones Brothers and Company, of Cincinnati. It is a large octavo of over 1200 pages. The large, clear print, beautiful engravings, press-work, binding, &c., are unexceptionable. The complete title is, "The Peoples' Farm and Stock Cyclopedia, embracing comprehensive and practical treatises on farm topics of every description, including farm management, fencing, farm drainage, fertilizers, the soil and its improvement, grasses, Corn, Wheat, miscellaneous crops of every description, root crops, fruit on the farm, gardening, insects, timber growing, farm homes and surroundings, small farms for poor men, handy things about the farm, etc. To which is added a complete volume on farm stock in all its departments, including the breeding, care and management of horses, cattle, hogs, sheep, poultry, bees, etc., food for animals, barns and barn-yards, the diseases of horses and live stock. A corps of special contributors have assisted in the preparation of the work. Illustrated with nearly four hundred engravings and diagrams." Those acquainted with Mr. Brown's writings would expect to find this volume, as it is, filled with the most reliable directions and methods for all the various operations of the farm; it is thoroughly practical. The following extract from the introduction relates to the aim and character of the work: "It seems to me to be a propitious time to bring out a book of this character, for there is no question that the old prejudice against 'book farming' is fast disappearing, and that the more intelligent farmers fully recognize the truth that a record of experience, given through the medium of the press to tens of thousands, is none the less true than

if spoken to a neighbor, and that the good it can do is thus increased infinitely, and that when printed in a book, so that it can be preserved and referred to, its value is much greater than if it was only in the paper, which is soon thrown aside and lost. Our agricultural interests are so varied, and the subject is so vast, that no one man can be expected to understand or excel in all the branches of farm management. Recognizing this, I have availed myself of the assistance of others, whose contributions will be found valuable in their various departments." Of the price of the volume we are not informed.

A MESSENGER OF BRIGHTNESS.—I feel that I must thank you for the enjoyment I find in your MAGAZINE. It comes to me every month laden with the perfume of Flora's domains, and full of golden sunshine. I cannot sufficiently express the real pleasure it brings into my life. After I have read it I send it as a messenger of love and brightness to the home of two flower devotees in the far west. They read it, and start it once more on its mission work in another home. So the sweet little messenger travels from fireside to fireside, scattering garlands of sweet thoughts and wise suggestions. Books are real missionaries, and I try to send out several every month with marked passages, foot-prints, you see, to show my friends who come after me the road I traveled along, and as they read they know that I have been there before them.—C. M. T., West Chester, Pa.

MICROSCOPY.—The principal journal in this country devoted to this subject is the *American Microscopical Journal*, published at Washington, D. C., by R. Hitchcock. The price is one dollar and fifty cents a year. It is a valuable publication, and the thousands in this country who are now employing the microscope should give it a generous support, in fact, none of them can afford to do without it.

YOUR PLANTS.—Plain and practical directions for the treatment of tender and hardy plants in the house and garden, by Jas. Sheehan. Orange Judd Co., New York. Price (25?) cents. A pamphlet of 80 pages of practical matter, which on the whole is reliable, though on account of the great number of subjects touched upon in so small a compass, it is necessarily somewhat superficial.

THE MAN WONDERFUL IN THE HOUSE BEAUTIFUL. An Allegory, teaching the principles of Physiology and Hygiene, and the effects of stimulants and narcotics. For home reading; also adapted as a reader for high schools and as a text book for common, intermediate and district schools. By Chilion B. Allen, A. M., LL.B., M. D., and Mary A. Allen, A. B., M. D. New York; Fowler & Wells Co. Price (\$1.00?) Departing from the usual style of scientific writings, this book is written in a manner that cannot fail to interest the reader or the student in the subject; and the subject, as we all know, is one of the highest importance, a knowledge of which should form a part of the stock of ideas of every school child as soon as the mind is capable of receiving them. The physical progress of the race must depend upon a correct knowledge and application of the principles of physiology and hygiene as related to the human system.

ORCHIDS, THE ROYAL FAMILY OF PLANTS, by Harriet Stewart Miner. Many and tempting are the holiday books, but among them all none can be found more attractive than this new treasure. The gorgeous cover only gives a faint idea of the beauties contained therein. In the introduction, Orchids are mentioned as the "elite of the floral kingdom," and surely a reigning Queen could not desire a more fitting tribute. The twenty-four colored plates, prepared by the "Hatch Lithographing Company of New York, can hardly be surpassed. All descriptions are carefully written, while many poetical gems are scattered throughout the volume. The clear type, elegant paper and wide margins cannot fail to delight all. The volume is a quarto. Published by Lee & Shepard, Boston, Mass. Cloth, full gilt, \$15.; Turkey morocco, \$25.00.

DRUGS AND MEDICINES OF NORTH AMERICA.—The fourth number of this quarterly, devoted to the historical and scientific discussion of the botany, pharmacy, chemistry and therapeutics of the medicinal plants of North America, is received, and continues the record of the properties of *Hydrastis Canadensis*. Some fine engravings of crystals of different salts of Berberine derived from this plant are displayed, and these substances shown to be identical with similar substances derived from *Berberis*. Physicians, druggists and chemists will find this work thoroughly reliable and of much interest and value. Price one dollar a year. J. U. & C. G. Lloyd, publishers, 180 Elm street, Cincinnati, Ohio.

THE CHILDREN OF THE BIBLE.—This is a beautiful volume of 270 odd pages, by Fanny L. Armstrong, with an introduction by Francis E. Willard, President N. W. C. T. U. Published by Fowler and Wells, at one dollar. Miss Armstrong has drawn on that richest of moral sources, the Bible, for her topics, and with rare tact prepared this volume of stories for children. She knows the kind of setting that is needed to make each beautiful incident attractive to young minds. It is just the kind of book for the home table and the Sunday School library, and should be in the hands of all Sunday School teachers.

HOW TO LIVE A CENTURY AND GROW OLD GRACEFULLY. By J. M. Peebles, M. D. New York, M. L. Holbrook & Co. Price 50 cents. This is a well written pamphlet of 98 pages, in which the writer has "aimed to bring to view and clearly present the vital importance of air, food, clothing, drink, sunshine and sleep in such varied ways as to inspire the reader with a proper and persistent use of them that the number of years upon earth may be many—even a hundred." It is well calculated to do good.

PRIZE ESSAYS FOR 1885.

The prizes offered for Essays, last year, resulted in the publication in our pages of some of the best thoughts on horticultural topics of persons practically engaged in the operations of which they wrote, and this kind of information is what is most needed. We again take this method of calling out the most valuable and reliable experience on subjects that will interest a variety of readers.

For the best well written article on each of the following subjects, we offer to pay in seeds and plants selected from our FLORAL GUIDE, the sums as respectively stated.

1. What agencies and methods can the residents of villages employ to secure the practical effects of the most advanced ideas of sanitation, and the proper horticultural embellishment of streets and grounds? Twenty-five Dollars.

2. How can the Rose be best managed as a house plant, and what varieties are most suitable for that purpose? Twenty Dollars.

3. How can Asparagus be best and most economically raised for market, and what are the details of cultivation, gathering, packing and marketing? Twenty Dollars.

5. What varieties of Peas are most profitable for the market gardener, and what most desirable for the table, and what are the best methods of cultivation in each case? Twenty Dollars.

6. What practices can be most successfully employed to secure the Apple orchards from the codlin moth? Twenty Dollars.

7. Is the Mushroom, any where in this country, raised extensively for market, or can it be so raised to advantage, and, if so, in what manner? Twenty Dollars.

8. What salad plants are most desirable, and by what manner of cultivation can a family be best supplied with them from a private garden? Fifteen Dollars.

10. What is the best method of treatment in the propagation and cultivation of the Cyclamen to secure fine blooming plants? Fifteen Dollars.

11. How can the finest pot-plants of Chrysanthemums be raised, and what varieties are desirable? Fifteen Dollars.

12. How can amateurs without greenhouses keep up a winter supply of Violets and Pansies? Fifteen Dollars.

Manuscripts should be here by the first of March. Committees of at least three persons each, selected for their competency as judges on the various subjects, will decide on the merits of all contributions and award the prizes.

The prize communications will in due time be published, and those not accepted will be at the disposal of the writers. Those wishing unaccepted articles returned will please so state, but any left in our possession will be examined, and anything of special interest will be published, giving the author credit. Announcement of prizes will be made immediately after the awards.

DO NOT DELAY.

During this month the subscriptions for nearly all the periodicals in the country are made up. Now is the time to introduce to your friends VICK'S MAGAZINE; each subscriber will receive in addition a copy of *Good Cheer*, or he will be able to take advantage of our low terms to secure other periodicals, a full list of which appears in our advertising columns. We expect during the next four weeks to hear from all our old subscribers and many new ones.